(16,865.)

SUPREME COURT OF THE UNITED STATES.

OCTOBER TERM, 1898.

No. 291.

THE TELLURIDE POWER TRANSMISSION COMPANY AND L. L. NUNN, PLAINTIFFS IN ERROR,

vs.

THE RIO GRANDE WESTERN RAILWAY COMPANY.

IN ERROR TO THE SUPREME COURT OF THE STATE OF UTAH.

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1 STATE OF UTAH:

Supreme Court.

RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff and Respondent,
vs.
THE TELLURIDE POWER TRANSMISSION COMPANY ET AL., Defendants and Appellants.

Transcript on Appeal.

Brown & Henderson, attorneys for defendants and appellants.
Bennett, Harkness, Howat & Bradley, attorneys for plaintiff and respondent.

2 In the District Court of the Fourth Judicial District, State of Utah, in and for Utah County.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, and L. Holbrook, Defendants.

Plaintiff complains of the defendants and alleges—

That the plaintiff is a railroad corporation, organized on or about the ninth day of July, 1889, in and under the laws of the State of Colorado and the Territory, now State, of Utah, and that it still continues to exist as a corporation, and that its corporate name is "the Rio Grande Western Railway Company."

That by the articles of agreement of incorporation it was organized and authorized and still is authorized to acquire, construct, maintain, and operate various lines of railroad and telegraph in said State of Colorado and in the Territory, now State, of Utah, and, among others, a line from Grand Junction, in Mesa county, in the State of Colorado, to Ogden, in Weber county, in Utah, passing through the city of Provo, in the county and State of Utah, and that it has acquired and constructed and for several years operated said last-mentioned line and other lines of railroad in Utah.

That among other lines of railroad which the plaintiff is authorized to construct and operate in Utah are lines on and over the routes following, to wit:

3 A line from the city of Provo, in Utah county, to a point on the eastern boundary line of Utah where the same is crossed by the valley of the White river, passing into or through the counties of Uintah, Wasatch, and Utah.

A line from a point at or near Provo, in Utah county, to a point at or near the mouth of Duchesne fork of the Uintah river, in Wasatch county, passing into or through the counties of Utah, Wasatch, and Summit.

That said counties into and through which said lines of route pass are referred to as said counties were bounded at the time of the organization of the plaintiff company.

That the only feasible route for a railroad from at or near Provo city and thence northeasterly and easterly to either of said described routes is to go northeasterly up or in the direction of the Provo river to the mouth of Provo cañon, and thence up said Provo river and cañon to the summit of the Wasatch range of mountains, a distance of thirty miles, more or less, from the city of Provo, and that from the mouth of Provo cañon up said cañon and said Provo river the line of railroad on either of the routes above named must be in and up said cañon and the lines for that distance identical.

That in the year 1889 and soon after its organization the plaintiff filed with the Secretary of the Interior, at Washington, D. C., a copy of the articles of incorporation and due proofs of its organization under the same.

And the plaintiff alleges that on or about the 1st day of March, 1896, it commenced a survey and location of a line of rail-
4 road from a connection with its main line in the city of Provo aforesaid to the mouth of Provo cañon, and thence up said cañon and Provo river, and prosecuted said survey and location with diligence and completed the same for a distance of forty miles from the city of Provo, and that the said survey and location, to wit, from a point about six miles from Provo City and at or near the mouth of Provo cañon, thence up the same in the Provo river northeasterly *where* a distance of twenty miles, more or less, is upon both the lines of route specified in its charter, as aforesaid, and, lastly, upon unsurveyed lands of the United States.

That the plaintiff has made a map of said surveyed and located lines, and the survey and location thereof has been adopted by the plaintiff as the definite location thereof, and the plaintiff has commenced and is prosecuting the construction of its railroad on said line.

That said line of survey passes over and into certain tracts of unsurveyed land of the United States which are situated in township 5 south, of range 3 east, of the Salt Lake meridian, and it is computed that when said township is divided said tracts will be the northeast quarter of the northwest quarter of section 34, the north half of the northeast quarter of section 34, and the southeast quarter of the southeast quarter of section 27, in said township and range.

And on information and belief the plaintiff alleges that prior to said location and survey one A. L. Murphy was in the occupation of said tracts of land and had or claimed some right to the possession and to future right to acquire the same by virtue of
5 said occupation.

That the plaintiff, on or about the 5th day of March, 1896, appropriated and took possession, for railroad purposes and for its track and right of way, of a strip of land on and over the lands aforesaid so occupied by said A. L. Murphy and which the plaintiff had previously surveyed and located for said uses, described as follows:

A strip of land 200 feet wide, being 100 feet wide on each side of the center line of the survey and location across the land occupied by said A. L. Murphy, said center line beginning at a point marked 643 + 40, where said line crosses a fence between lands occupied by said Murphy and lands occupied by W. W. Ferguson, which point is computed to be 715 feet, more or less, north and 200 feet, more or less, west from where the common corner of sections 26, 27, 34, and 35 of said township and range will be when said township is subdivided; thence running in a southwesterly direction down the Provo cañon and river 3,500 feet, more or less, to a point which is 3,600 feet, more or less, northeasterly from a wagon bridge across said Provo river, and also is above 150 feet southwesterly from station 609 + 48 of the survey of said center line, containing sixteen acres, more or less, the stations referred to being the numbers of stations from the connection at Provo City and each being 100 feet.

And on information and belief the plaintiff alleges that on or about the 5th day of March, 1896, by virtue of a compliance with the act of Congress respecting rights of way for railroads, it became the owner of the right of way last described, containing sixteen acres, more or less, subject only to the obligation to pay
6 the said occupant, A. L. Murphy, damages to his possessory right, and on or about the day last aforesaid the plaintiff contracted with said A. L. Murphy for the release and conveyance of all his right in and to said land, and afterwards and on the 22nd day of June, 1896, in pursuance of said prior contract, the said A. L. Murphy and his wife, Eurice Murphy, conveyed to the plaintiff all their right, title, and interest in and to said lands, and that since on or about the 5th day of March, 1896, the plaintiff has been the owner and entitled to the possession and, except as the possession has been interrupted by the defendants, lawfully in possession thereof.

A map of the right of way of plaintiff on and over the lands described is annexed and made a part of this complaint and marked Exhibit "A."

And on information and belief the plaintiff alleges that the defendants wrongfully make, set up, and assert an adverse claim to said lands so owned by the plaintiff, and in pursuance of their said adverse claim have interrupted the plaintiff in pursuing the work of grading for its railroad on and over said lands, and by threats of force have stopped the plaintiff's work at places thereon and deny the right of the plaintiff to use said land for railway purposes; that said land is of little value except for railroad uses, and the adverse claim of the defendants irreparably injures and damages the plaintiff and its estate in said lands.

And on information and belief the plaintiff alleges that the defendant The Telluride Power Transmission Company is or claims to be a corporation of the State of Colorado, and is exercising
7 corporate rights.

Wherefore plaintiff prays that the defendants be required to set forth the nature and extent of their adverse claim to the lands aforesaid; that their adverse claim be adjudged unfounded; that the title and right of possession of the plaintiff be confirmed, and

that the defendants and all persons acting for them or claiming under them or either of them be restrained from asserting any adverse claim to said lands or the possession thereof or interfering with the plaintiff's possession pending the action, and that on trial the injunction be made perpetual; also for such other and further relief as may be proper, with costs of suit.

THURMAN & WEDGEWOOD,
BENNETT, HARKNESS, HOWAT & BRADLEY, *Attorneys for Plaintiff.*

STATE OF UTAH, }
Salt Lake County, } ss:

William F. Colton, being sworn, deposes and says that he is the assistant secretary of the plaintiff company herein; that he has read and knows the contents of the foregoing complaint, and that the same is true of his own knowledge except as to those matters therein stated on information and belief, and as to those matters he believes same to be true.

WM. F. COLTON.

Subscribed and sworn to before me this 10th day of September, 1896.

WM. BRADLEY,
Notary Public, Salt Lake Co., Utah.

8 Indorsed: No 923. Complaint. Filed Sept. 12, 1896. E. L. Jones, clerk.

9 STATE OF UTAH:

In the District Court of the Fourth Judicial District in and for the County of Utah.

THE RIO GRANDE WESTERN RAILWAY CO., a Corporation, Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION CO. ET AL., Defendants. } Demurrer.

Now comes the above defendants in this cause and demur to the complaint herein (not waiving the right of the Telluride Power Transmission Company to the removal of said cause to the United States court, as heretofore petitioned), and for cause of demurrer show that the said complaint does not state facts sufficient to constitute a cause of action.

BROWN, HENDERSON & KING,
Attorneys for Defendants.

Indorsed: Demurrer. Due service of a copy of the within demurrer duly admitted this 2nd day of January, 1897. Bennett, Harkness, H. & B., att'ys for pl'ff. Filed Jan. 5, 1897. George Havercamp, clerk, by R. B. Thurmann, deputy.

10 In the District Court of the Fourth Judicial District, State of Utah, in and for Utah County.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, and L. Holbrook, Defendants.

The within cause coming on regularly to be heard upon the demurrer to the complaint on January 16th, 1897, the said demurrer having been submitted, it is now by the court ordered that the said demurrer to the complaint herein be, and the same is hereby, overruled.

Dated January 16th, 1897.

11 In the District Court of the Fourth Judicial District, Utah County, Utah.

THE RIO GRANDE WESTERN RAILWAY CO., Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION CO., L. L. NUNN, and L. Holbrook, Defendants.
Answer.

Now come the above-named defendants, and, answering plaintiff's complaint filed herein, allege—

That they have no sufficient information and belief to answer the first paragraph of plaintiff's complaint, and therefore deny that plaintiff is a railroad corporation, organized under the laws of the State of Colorado or the Territory of State of Utah, or a corporation at all, or that it still continues to exist as a corporation, or that its corporate name is the Rio Grande Western Railway Company.

And not having sufficient information and belief to answer the second paragraph of plaintiff's complaint, defendants deny that by the alleged articles of agreement of incorporation or otherwise plaintiff was organized or authorized or is still authorized to acquire, construct, or maintain or opaerte various lines of railroad or

12 telegraph in Colorado or Utah, or that it is authorised or organized to acquire or construct or maintain or operate a line from Grand Junction, Mesa county, Colorado, to Ogden, Utah, or that it has acquires or constructed said line or any line in Utah.

And not having sufficient information and belief to answer the third paragraph of plaintiff's complaint, and basing their denial on that ground, defendants deny that plaintiffs are authorized to construct or operate a line from Provo, Utah county, to a point on the eastern line of Utah, or any line passing into or through the counties of Uintah, Wasatch, or Utah, or a line from a point at or near Provo, Utah county, to the mouth of the Duschesne fork of Uintah river, Wasatch county, or any line passing into or through the counties of Utah or Wasatch or Summit.

And that the only feasible route for a railroad from at or near Provo City and thence northeasterly or easterly by either of said routes or any route is to go northeasterly up Provo river to the

mouth of Provo cañon, or up said Provo river to the summit of said Wasatch range of mountains, or up said river, or that from the mouth of said Provo cañon up said cañon and said Provo river the line of said alleged or any railroad on either of said rout-s or any route must be in or up said cañon, or that the lines must be identical.

And not having sufficient information or belief to answer the fifth paragraph of plaintiff's complaint, and placing its denial on that ground, defendants deny that in the year 1889, or at any time, plaintiff was organized or filed with the Secretary of the Interior, at Washington, D. C., a copy of its alleged articoes of incor-
13 poration, or due proofs or any proofs of its organization under the same or otherwise. Defendants admit that in April or May, 1896, plaintiff ran a line up Provo cañon, but deny upon information and belief that on the first of March, 1896, or at any time it has commenced a survey or location of line of railroad from a connection with its alleged main line in Provo to the mouth of Provo cañon, or up said cañon or river, or prosecuted said survey or location with diligence, or prosecuted it at all, or completed the same for a distance of 40 miles from Provo City, or any distance at all, or that it surveyed and located any line from a point near Provo City, near the mouth of Provo cañon, up said cañon or river northeasterly or otherwise for a distance of 20 miles or any miles, or that said alleged survey is upon the lines or any line or of routes specified in said alleged charter, or upon surveyed or unsurveyed lands of the United States.

And upon information and belief defendants deny that plaintiff has made a map of said alleged surveyed or located line, or that said alleged survey or location has been adopted by plaintiff as the definite location thereof or adopted at all, or that plaintiff has commenced or is prosecuting the construction of its railroad on said line or any line. Defendants admit that certain persons, claiming to be the agents of said alleged plaintiff, have during the summer and fall of 1896 ran on uncertain and irregular lines up said cañon without any apparent definite purpose or object, and that certain persons claiming to be the agents of said alleged plaintiff have at various points in said
14 Provo cañon cut brush and made slight and unimportant excavations, which from their character give no evidence of any purpose or design on the part of any person to survey or construct any line of railroad. Defendants deny that plaintiff made any line or survey, as alleged in said survey, but admits that the uncertain and irregular line run by said persons mentioned in the foregoing paragraph in this answer pass- over and into certain tracts of unsurveyed land; and deny that prior to said alleged location or survey, or at any time or at all, one A. L. Murphy was in the occupation of the land described in the complaint or any part thereof, or had or claimed some right -o the possession or future right to acquire the same by virtue of said occupation or otherwise or at all; and deny that the plaintiff, on or about the 5th day of March, 1896, or at any time, appropriated or took possession, for railroad pur-

poses or for any purpose whatever or for its track or right of way, of the strip of land or any land over the land described in said complaint or any land occupied by said Murphy, or that said Murphy occupied any lands, or that plaintiff had previously surveyed or located any lands for railroad purposes or for its track, or that it had located or appropriated the strip of land described in said complaint, being 200 feet wide, as in said complaint described.

And deny on information and belief that on or about the 5th day of March, 1896, or at any time, by virtue of the compliance with the act of Congress relating to the appropriation of lands, or by virtue of any act or at all, plaintiff became the owner of the right of way described in said complaint or any right of way, or that said alleged right of way contained 16 acres, more or less, or any number of acres, or that plaintiff was under obligation to pay
15 A. L. Murphy any damages for his alleged possessory right, or that said Murphy had any right, or that said Murphy was the occupant of any land, or that said plaintiff contracted with said Murphy for the release or conveyance of his alleged right to said land, or that on the 22nd day of June, 1896, or at any time, in pursuance of said alleged contract, the said Murphy or his wife conveyed to plaintiff all or any right, title, or interest in and to said land, or that since the 5th day of March, 1896, or at any time or at all, plaintiff has been the owner or entitled to the possession or has been in possession of said premises or any part thereof.

And upon information and belief deny that plaintiff has any right of way on or through the lands described in said complaint or as shown by Exhibit "A," annexed to said complaint.

And deny that defendants wrongfully make or set up or assert an adverse claim to said lands, or that plaintiff owns said lands or any part thereof, or that plaintiff graded for railroad purposes on said lands, or that by threats or force defendants have stopped plaintiff's work.

And deny that said land is of little value except for railroad uses, but, on the contrary, allege that said land is of great value for reservoir and canal purposes.

And deny that said claim of defendants irreparably or otherwise injures plaintiff or his estate in said land, or that plaintiff has any estate in said land.

And the said defendants further allege that the said defendant Holbrook has no interest in the subject-matter of this controversy.

The said defendants, The Telluride Power Transmission Company and said L. L. Nunn, hereby deny that said court has any
16 jurisdiction over them or the subject-matter of this controversy, and protest and object to said court hearing said cause or taking jurisdiction thereof or over said defendants. They aver that it has no right to hear said cause or to require said defendants to answer herein, and they hereby expressly declare that in answering said complaint they do not submit to the jurisdiction of said court or waive their rights to object to the trial of said cause by the said court, or to waive to dismiss the same for lack of jurisdiction over the subject-matter or over the defendants, or to move to remove

said cause to the circuit court of the United States in and for the district of Utah.

Further, by way of answer, the said defendants, The Telluride Power Transmission Company and L. L. Nunn, affirmatively allege that the Telluride Power Transmission Co. is a corporation duly organized and existing under the laws of Colorado, the stockholders thereof being citizens of the United States and all the stock of said corporation being owned by citizens of the United States; that said corporation was organized, among other things, for the purpose of acquiring, by purchase or otherwise, water rights, ways, and power, and to work, develop, and utilize water rights, ways, power, mills, etc., for such business and enterprises as appertain to the same, and that the said L. L. Nunn at all times herein mentioned was and still is a citizen of the United States.

That the Provo river, after leaving the Wasatch valley in Wasatch county, enters into a cañon which is wide at various points therein and flows a distance of about 20 miles in said canyon before
17 emerging into what is known as Utah valley, in Utah county; that said river in the spring time and periods of high water flows large quantities of water which are not used for agricultural or any other purpose, and which, by means of said river, flow down and escape into Utah lake, and that in the summer season and during the period of irrigation said river becomes low and flows but a small quantity as compared with the quantity therein in periods of surplus, as aforesaid; that said canyon is well adapted for a reservoir in which can be stored the surplus and unused waters, as aforesaid; that in periods of low water the amount so flowed down in said canyon is inadequate for the wants of the people residing in said Utah valley for agricultural and domestic purposes; that said Utah valley is populous and contains many large cities and towns which require heating and lighting and power for manufacturing purposes, and within short distances of said canyon are large mining camps, in which many important and producing mines are operated; that in the operation of said mines and the machinery used about the same and connected therewith power is essential and necessary and is only obtained by the burning of coal and coke and at great expense; that the production of electrical power for the operation of machinery and plants for lighting, heating, and for manufacturing and other pursuits has become an important enterprise and one which is of immense advantage to . sons and localities, and is superceding other means of supplying th. cessary power to carry on said pursuits; that said defendants for years have been engaged in acquiring water rights for power purposes, and in the year 1894 they entered upon said Provo canyon and had extensive surveys made with a view to determining whether
18 power could be obtained with which to supply said towns and cities in said Utah valley and said mining camps, and also whether by reservoiring the surplus water additional power could be obtained and water obtained for agricultural and domestic purposes; that said surveys were prosecuted with diligence, and said defendants in said year determined to acquire in said canyon water rights for the

purpose of generating electrical power and to irrigate the lands in said valley below; that the greater part of said lands in said canyon were unoccupied and unsurveyed and were, except in few cases, of but little or no value except for the purposes designated by said defendants; that said defendants took possession of a large portion of the public domain lying in said canyon, and commencing at a point at or near what will be, as nearly as d-fendants can determine when surveyed, the southwest corner of *of* the southeast quarter of sec. 27, in township 5 south, of range 3 east, and extending up said canyon and on both sides of said Provo river a distance of about 5 miles, for the purpose of constructing a reservoir thereon, and also took possession and entered into the occupation of other public lands below said point first mentioned for the purpose of constructing canals, flumes, and small dams in order to carry out the purpose and enterprise aforesaid; that the point first mentioned in said sec. 27 and the land above in said canyon, until the land then occupied by W. W. Ferguson was reached, was vacant and unoccupied at the time said defendants entered said canyon, and they then and there took possession of the same and entered upon the actual occupation and possession thereof; that at
19 or near said southwest corner of said sec. 27, upon each side of said river, large cliffs of rocks projected from the mountain and approached close together in the bottom of said canyon and formed a suitable and proper place for the construction of a dam; that said defendants, after extensive surveys had been made, began in the year 1895 the construction of a flume and commenced the necessary excavations therefor, in order to obtain power with which to aid in the construction of a large dam at the point aforesaid by which to reservoir and hold back the waters of said river for power and irrigation purposes; that defendants had the necessary surveys for canals made for the purpose aforesaid and surveyed a reservoir site, beginning at or near the point where said rock cliffs projected into said cliffs, and showed upon the surveys so made the contour of the line of said reservoir and pi[illegible]ected with due diligence the work necessary for the construction of the enterprise entered upon.

Defendants further aver that in the winter of 1896 and in the early spring of 1896 they vigorously prosecuted said work and expended large sums of money in said surveys, flumes, excavations, etc.

Defendants further aver that long prior to the time when plaintiff alleges it entered into said canyon they in good faith entered upon said public, unsurveyed land of the United States with the design and specific purpose of constructing in said canyon, at the point aforesaid, a large and expensive dam by which to reservoir and store said surplus waters of Provo river; that they surveyed said
20 reservoir, extending the lines of survey up said river from said point at or near sec. 27, in Utah county, to a point at or near the northeast corner of the northeast quarter of the southwest quarter of sec. 27, township 5 south, range 4 east, of

Wasatch county, Utah, and duly marked upon the ground the contour of the line of said survey.

Defendants further aver that they have located a reservoir, the necessary canals connecting with said reservoir, and that since the year 1894, as aforesaid, they have been in the actual, notorious, visible, and peaceable possession and occupation, except as stated hereafter, of the lands described in plaintiff's complaint and between the points aforesaid, as well as the land lying west and below in said canyon, where surveys for canals and flumes have been made, except the claim of W. W. Ferguson, lying in said canyon, has been occupied by said Ferguson, but defendants allege that they have contracted to purchase the same from him and have paid him a large sum of money therefor.

Defendants further aver that when they entered upon said land the said A. L. Murdock was not in possession thereof, and that he never has been in the possession or occupation of said land or any part thereof and has not and never did have any right, title, claim, interest, or property in and to the land described in plaintiff's complaint or any part thereof or any land in said canyon or any lands so occupied and possessed by said defendants; but defendants allege that they during all the period aforesaid have had open and notorious possession thereof; that said possession has been actual and *bona fide* and with the full knowledge of the said plaintiff, and that the said plaintiff well knew, long before the time alleged in
21 said complaint of its entry into said canyon, that defendants were in possession of said public domain and were engaged in the constructions of flumes and dams and a reservoir for the purposes herein stated. Defendants aver that in good faith they have prosecuted with vigor the enterprise engaged in and have expended a large sum of money, to wit, more than $50,000.00, in said enterprise, and that it has been and now is their intention and purpose to complete said dam, and to store the waters of said river in the reservoir so constructed, and to use the same for the generation of electrical power for heating, lighting, manufacturing, and other purposes, and also to use said water for irrigation and domestic purposes.

That by means of said dam they will be able to obtain more than 8,000 horse-power, which will be sufficient to supply said Utah county and the towns and cities therein with power for heating, lighting, and manufacturing purposes, and also said mining camps, and will prove a great and lasting benefit to said cities and the persons using the same, and will aid in the development of mining, manufacturing, and other industries which will prove of great advantage and benefit to Utah and its inhabitants.

In addition thereto, defendants aver that by means of the water so stored and reservoired they will be able to supply water for irrigation purposes, and that large quantities of unoccupies and sterile public land will be brought into cultivation, to the permanent advantage and prosperity of the State.

Defendants further allege that said plaintiff, some time in the summer of 1896, wrongfully and maliciously and for the purpose of

annoying said defendants and interfering with their pro-
22 ject and enterprise, came into said Provo canyon and ran irregular, indefinite, and devious lines through a portion of said canyon, pretending that it was the purpose to establish a railroad therein; but defendants allege that said lines so run were so irregular, so uncertain, so shifting and changing as to indicate no such purpose; that in two or three points in said canyon various persons claiming to represent said plaintiff made slight excavations, but the character thereof was such as to indicate no purpose to construct a railroad or to perform intelligently or with a settled or fixed purpose any enterprise; but defendants upon information and belief allege that said plaintiff has no purpose or design to construct a railroad in said canyon, but that what has *be* been done has been done with a view to annoy said defendants and to prevent them from constructing their reservoir and canals and from obtainong electrical power for the purposes aforesaid, and also for the purpose of preventing any legitimate railroad undertaking from being consum-ated if the operation of a line through said canyon was essential to said undertaking.

Defendants allege that the construction of a road along the bottom of said canyon would be destructive to their enterprise and reservoir power and would prevent them from carrying out the work in which they have been and still are engaged and which they were prosecuting long prior to the spasmodic, uncertain, and *mala fides* entry of said plaintiff into said canyon.

Defendants further allege that they are in the actual possession of
the land described in said complaint and have been for more
23 that two years last *last* past, as well as other lands in said canyon, as above set forth, and that while in such possession and while engaged in the construction of dams, canals, flumes, reservoirs and in the making of surveys, and while in the actual, peac-able, notorious, and open possession of said unoccupied public domain, persons claiming to represent the said plaintiff entered said canyon in the summer of 1896 and pretended that they desired to survey across said land, and while the said defendants were so engaged and so in possession as aforesaid said persons ran said indefinite and uncertain lines through a portion of said canyon.

Defendants further allege that said plaintiff nor any other person has any right to intrude upon their possession and occupation of the said lands described in said complaint or to prevent them from carrying out their enterprise so important and beneficial to the people of Utah.

Defendants further allege that to complete their said enterprise and said work the completion of said dam is necessary and the reservoiring of said water in said canyon is absolutely imperative, and that if said plaintiff or any other person shall construct a railroad in said canyon it will prevent the completion of said dam and reservoir, and will absolutely destroy the said enterprise upon which defendants have entered, and they will be despoiled of the rights and property acquired by them and will suffer great and irreparable damage and injury. Defendants aver that said

enterprise and the work so undertaken by them and the site thereof are of great value, to wit, of the value of more than $500,000.00, and *and* that if a railroad were constructed along the bottom of said canyon they would be damaged in a sum in excess of that
24 amount; that the construction of said dam and reservoir and the creation thereby of electrical power for the purposes aforesaid and to the extent aforesaid, and the obtaining of water for agricultural and domestic purposes as aforesaid, are of higher and infinitely greater importance that the construction of a line of railroad through said canyon, and the exercise of the right of eminent domain, contended for by plaintiff in said complaint, over the land in said complaint described would prevent the defendants from completing said work and render valueless all that they have done.

And defendants deny that said plaintiff can exercise the right of eminent domain as against the said defendants and for the purpose of destroying an enterprise and work of such magnitude as that upon which defendants have entered, and they allege that it is not within the contemplation of the statute to allow the right of eminent domain to be exercised under circumstances such as are alleged herein and as prevail in this case, and that this court has no right to entertain plaintiff's complaint or to grant the relief prayed for in said complaint.

Defendants further aver that said plaintiff well knew defendants' intention and the character and extent of their claims, the possession and occupation of said lands and said reservoir site long prior to the time when said persons claiming to represent said plaintiff entered said canyon to run said irregular and uncertain surveys, and that to permit the said plaintiff to condemn the said land and to deprive defendants of their possession and occupation of said public domain and to deprive them of their right, interest, and property in and to said land described in plaintiff's complaint and to
25 destroy their said enterprise and to compel them to vacate and abandon said canyon and said reservoir and the canals and work done and performed by them would be a grievous wrong and fraud upon their rights.

Wherefore said defendants pray that said court refuse to entertain said complaint or to assume jurisdiction of the alleged cause of action therein set forth or to grant any relief to said plaintiff or to condem- or dispossess defendants of said lands herein described and in said complaint set forth.

Defendants further pray that said plaintiff take nothing by its complaint, and that the defendants may have their costs herein expended.

BROWN, HENDERSON & KING,
Attorneys for Defendants.

STATE OF UTAH, }
County of Salt Lake, } ss:

William H. King, being duly sworn, says that he has read the foregoing answer and knows the contents thereof, and that the same is true of his own knowledge except as to the matters therein stated

upon information and belief, and as to those matters he believes it to be true. Affiant makes this verification upon information conveyed to him by said defendants and other persons and because said defendants are not within the county of Salt Lake, that being the county in which affiant resides.

WILLIAM H. KING.

Subscribed and sworn to before me this 1st. day of February, 1897.

EDWARD S. FERRY,
[SEAL.] *Notary Public.*

26 Indorsed: Title of court and cause. Filed at Provo City, Utah, Feb. 2, 1897. Geo. Havercamp, clerk, by R. B. Thurman, dep.

27 In the District Court of the Fourth Judicial District of the State of Utah in and for Utah County.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff,
vs.
TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, and L. Holbrook, Defendants.

This cause having been heard on the 29th day of March, 1897, and following days, and the evidence and arguments of counsel having been considered, the following findings are now made, to wit:

Findings of Fact.

1st. That the plaintiff is a railroad corporation organized under and in pursuance of the laws of the State of Colorado and of the Territory of Utah on or about the 9th day of July, 1889, by the consolidation of the Denver and State Line Railway Company, a railroad corporation of the State of Colorado, and the Denver and Rio Grande Western Railway Company, a railroad corporation of the Territory of Utah, and under an agreement and articles of association for fifty years, containing all the provisions required for railroad corporations by the laws of said State and Territory. Said corporation filed with the Secretary of the Interior, at Washington, a copy of its articles of incorporation and due proofs of its organization under the same, as required by the act of Congress, chapter
28 152, approved March 3rd, 1875, entitled "An act granting to railroads the right of way through the public lands of the United States."

2nd. The articles and agreement of incorporation of the plaintiff, among other lines and routes which it was organized to construct and operate, described the lines and routes set forth in the complaint, and the only feasible route for a railroad from a point at or near Provo City, by either of the routes specified in the complaint, is up the Provo river and canyon from the mouth of said canyon (which

is about 6 miles from Provo City in a northeasterly direction) to or near the summit of the Wasatch range of mountains, a distance of about 35 miles from the mouth of the canyon, and there is no other practicable route for a railroad through any canyon or pass in the Wasatch range of mountains for a long distance north and south of Provo City and following in the general course of the lines and routes named in the complaint.

3rd. That the Provo canyon, through which the Provo river runs, from its mouth for a distance easterly of about 10 miles is narrow at the bottom and at most places with steep rocky sides, and at points where tributaries of the river come into the canyon the bottom of the ravines in which they flow are narrow and their sides steep and rocky.

4th. A county road goes up the bottom of Provo canyon near to but above the level of the water, and at places crosses the river by bridges, and this road has been used by the people since the first settlement of the country, and is the only means and route of travel from Provo and the Utah valley eastward through and over the Wasatch range of mountains.

29 5th. The plaintiff commenced at Provo City a location and survey of a line of railroad from a connection with its main line in Provo City and thence northeasterly to the mouth of Provo canyon, on the 23rd day of March, 1896, and diligently prosecuted the location, survey, and staking of a continuous line, and reached, located, surveyed, and staked its line up to the point hereinafter called the Hanging rock and to the lands in controversy, on the 10th day of April, 1896, and thence continued locating, surveying, and staking its line up said canyon and to Charleston, a distance of 23 miles from Provo City.

6th. This location and survey was made in good faith and with intent to construct a line of survey and to appropriate for the use of the railroad a right of way over the public lands of the United States. The location so made at and along these parts of the canyon in controversy was on the north side of the river, and a map of a section of 20 miles of the railroad as surveyed was afterwards made in accordance with the survey, and said section of 20 miles was partly unsurveyed and partly on unsurveyed lands of the United States.

7th. The plaintiff on or about the last days of June, 1896, commenced, through contractors, grading for its road-bed on the north side of the river and on the line located as above stated, at a point above what is known as Hanging rock, and on what was called the Murphy land.

30 8th. Prior to the 8th day of July, 1896, the plaintiff surveyed for a change of alignment from the north to the south side of the river for a distance of about four miles, and about the 1st of July, 1896, adopted the change in alignment and moved the graders, who were then at work, from the north to the south side of the river, and they commenced work on the particular strip of land described in the complaint and continued to work there until stopped by the defendants, as set forth in the complaint, but after-

wards did some work further up the river before stopping work in the canyon, and the reason assigned for stopping work was the controversy as to their right to construct a road on the grade at the level of the survey.

9th. The change of alignment from the north to the south side of the river was made in good faith, for the purpose of getting a better line and one that would not interfere with the work the defendants were then prosecuting, and such change asserted or maintained no new or additional claim. The line was practically at or near the same level as the first one, and the changed part connected at either end and with the first line, and, besides, any height of water that would flow from the changed part of the line would also flow — the piece of land on the north side, which was abandoned.

10th. The strip of land in controversy and the line of route of the railroad for some distance east and west of said strip is on and over unsurveyed lands of the United States, and the strip first surveyed on the north side of the river and later abandoned was also
31 on unsurveyed lands of the United States, and from the evidence, if surveyed, would be in the same Government subdivision.

11th. The defendant The Telluride Power Transmission Company, from the evidence, is a mining corporation of the State of Colorado. Its certificate of incorporation as "the San Miguel Consolidated Gold Mining Company" was filed with the secretary of the State of Colorado February 7th, 1891. The laws of Colorado require the certificate, if business outside of the State was contemplated, to name the place or places of business. The certificate named no place of business outside of Colorado except the city of Boston, in the Commonwealth of Massachusetts.

By its articles the objects for which the company was created were "to acquire by purchase, lease, or otherwise mining property, together with water rights, power, ways, mills, and mill sites; to develope mine-work and utilize the same, and to carry on a general mining business."

By amendment to the certificate filed in the office of the secretary of State of Colorado, on the 15th day of February, 1896, the name of the corporation was changed to "the Telluride Power Transmission Company," and no other change was made.

Neither the San Miguel Consolidated Gold Mining Company nor the Telluride Power Transmission Company has filed in the office of the secretary of the Territory of Utah or the secretary of the State of Utah any copy of its articles of incorporation or of its by-laws or any appointment of an agent on whom service can be made or any paper or document relating to said companies or either of them.

32 12th. The defendant L. L. Nunn is a native citizen of the United States, residing in the State of Colorado, and has been and is the general manager of the Telluride Power Transmission Company, and the defendant L. Holbrook is a native citizen of the United States, residing in Utah.

13th. That in Provo canyon there are points referres to in the testimony of this case as follows:

The county bridge, which is about 4 miles from the mouth of Provo canyon and about 5,600 feet below Hanging rock.

A point called Middle rock is about 3,900 feet above the county bridge and about 1,700 feet below Hanging rock.

Hanging rock is about 5,600 feet above the bridge and is the place where the defendants claim the right to raise the water to a height of 85 feet by means of a dam. At this point a rock about 85 feet high projects into the canyon from the north side, and a point of rock about 40 feet high projects into the canyon from the south side, and the distance across the canyon between these rocks is about 300 feet, and the river flows between these rocks.

The strip of land directly in question is on the south side of the river and extends about 80 rods or more above Hanging rock and down the river to a point below Middle rock.

14th. On or about October 5th, 1894, the defendant Holbrook, by the directions of the defendant Nunn, put up a notice about 200 feet above the county bridge; which notice was afterward recorded as follows:

Notice.

"The undersigned hereby declares and publishes as a legal
33 notice to all the world that he has a valid right to take, at or near the point where this notice is posted, further described as follows, to wit, at the confluence of the stream that forms Bridle Veil falls with the Provo river, about 80 yards above the bridge across said river, near Thayer's house, the waters of the Provo river and convey the same, by means of suitable dam, flume, and pipe line, to a power station, to be built near said river, and to use said water for the purpose of generating electric current for furnishing light and power and other beneficial purposes.

Dated this 5th day of October, A. D. 1894.

L. HOLBROOK, *Trustee.*"

In the fall of 1894 a level line was run and marked down the river from a point near this notice toward the point mentioned as a site for a power plant and some brush cut that fall and winter, but no other work has been done at or near this point, and the defendants as early as May, 1895, abandoned any intention of diverting or appropriating water at or near said point or under said notice.

15th. In May, 1895, the chief engineer of the defendant decided on Middle rock as the point of diversion of what he calls the temporary plant, and in the fall of 1895 surveyors acting for the defendants or some of them run several trial level lines at and from the point called Middle rock, about 3,700 feet above the Holbrook notice, and run at least 3 of said lines on the north side of the river. They were run with a level and marked with brush stakes and at places small flags or markers on the stakes, and sufficient brush was cut at places on the lines to enable the lines to be followed.

The lines were not measured or divided into regular dis-
34 tance stations. The upper line was sixty feet above the level of the river at Middle rock, and was extended up the river to a distance of about a mile above Hanging rock, and also down the river a distance of about one mile.

The middle line was about 30 feet lower, and did not extend above the base of Hanging rock. Nothing further has ever been done on the middle line. The lower line at the upper end was run to connect with the river or a small dam at Middle rock. After running these lines in the fall of 1895 they had brush cut off the line of the lower line, and commenced preparing the ground for a permanent survey and grading. About this time there was set on the bank of the river near the point where the lower line would connect with the river and from 12 to 15 fett above the water level a stake marked "top of dam," and this stake stood there until August, 1896.

16th. On the 24th day of March, 1896, a surveyor representing the defendants or some of them went to the ground and began a preliminary survey for the flume bed on the lower level, and on the 27th of March, by the direction of the chief engineer, he posted a notice in two places, to which he or the chief engineer put the name of defendant Nunn, one copy being posted at the Middle rock, on the 60-foot level above the river, and one at a place called Deer creek, about 7 miles above Middle rock, which notice was as follows:

"I hereby claim, for the purpose of constructing a reservoir, all land lying up this stream below the level of this point, and propose to use the same for a reservoir by the erection of a dam at
35 this point, so constructed that it will contain the water of this stream on a level with this notice. I propose to use the water for agricultural and manufacturing purposes; the water to be conducted from this point to the mouth of the canyon and thence to the benches of Utah valley.

L. L. NUNN.

March 27, 1896, Utah County, Utah."

A surveyor then commenced a survey of the contour of a reservoir on the 60-foot level, working intermittantly on that and on work on the lower level below Middle rock until the 20th of April, at which time he had reached about two miles up the river and then stopped and no further work was done on a survey of such a reservoir. The work on this survey was stopped by or under the direction of the defendant Nunn, who declared this notice was a mistake and that he did not intend a 60-foot dam at that place, but intended a dam to raise the water 85 feet at Hanging rock, and then directed the survey of the contour of a reservoir on the 85-foot level at Hanging rock.

On the 25th day of April, 1896, a surveyor commenced and on the 5th day of June, 1896, completed a survey of the contour of a reservoir on the 85-foot level from Hanging rock, which was made with and angle line, and at the point of beginning and at each angle

of the line a stake was set and marked "Water level, Provo Cañon reservoir." No written or printed notice other than those stakes has ever been given for an 85-foot dam or reservoir.

On April 4th, 1896, another surveyor, representing the defendants or some of them, went to the ground with a small force and commenced preparing the bed for a flume on the lower level from
36 Middle rock down the canyon, and he increased his force on the 6th of April and again on the 10th of April, 1896.

About the middle of May, 1896, he did some work and excavating on the 60-foot level, near the Middle rock, and had the brush cut on the line to about the distance of 100 feet above Hanging rock.

Some time in the summer of 1896, two small pits were sunk in the bed of the canyon, between the projections of Hanging rock, with a view to discover bed rock for the foundation of a dam, but the bed rock has not been found, and in the side of the canyon above Hanging rock some small pits were made to discover what amount of gravel or other material could be found to fill in above a dam.

No other work has been done on or towards the construction of a dam at Hanging rock.

17th. In the summer of 1896 the defendants, or some of them, completed the grade for a flume joining the river or a small dam at the river, at the Middle rock, and have put upon the bed 4,000 feet of flume down the canyon, with a capacity of 12,000 cubic feet per minute. The bottom of the flume where it would join the river at Middle rock is four or five feet above the river bottom and the height of the flume is about six feet, and a dam at this point 15 feet high would flow about 40 acres of land and be ample to divert the water of the river to the flume.

The expenditures of the defendants in their work, which amounts to about $45,000, have nearly and substantially all been made for this flume and to divert the water at its head, but no dam
37 has been commenced at that point.

18th. The minimum flow of the river at the dryest time is 9,000 cubic feet per minute, and the fall from Middle rock to the mouth of the canyon is about 356 feet, and 12,000 cubic feet per minute in the flume would give net — delivered on the wire from the dynamos 5,870 horse-power. The minimum flow of the river of 9,000 cubic feet would give net 4,400 horse-power. The flume has a grade of one foot to a 1,000 feet.

The defendants claim they completed a canal on the 60-foot level, which would require steeper grade, and the power of the additional height would be proportionately lost in grade.

19th. There is no evidence of an requirement or market for 10,000 horse-power, except that the defendant Nunn testified from an investigation there existed a market at Mercur and Tintic districts and elsewhere for that amount of power; but the requirements for such an amount of power is only a general estimate, and no requirement or need is shown for any definite or particular amount at any definite place or in any specified business, and it is shown that the Telluride Power Transmission Company, with 3 dams, only generate 4,000 horse-power at Telluride.

20th. A dam 15 feet high would not flow or injure the line of plaintiff's railroad as surveyed, and the survey of the railro-d allows for a dam at that height. Such a dam if it flowed the county road at all would only flow it for a short distance and at a place where it could be moved without much expense and without leaving the lower part of the canyon. A dam raising the water 85 feet at Hanging rock would flow the bottom of the canyon for over 4 miles
38 above that point, and flow the county road to a depth ranging from 70 feet to one foot, and the expense of carryong said road above such a reservoir upon the side of the mountain would be great, amounting to many thousands of dollars.

A dam raising the water 85 feet at the Hanging rock would require a change of grade of the railroad for about nine miles, at an increased cost for the grade of about 20,000 per mile; would increase the maximum grade in the canyon and the costs and dangers of operation; and such a reservoir would flow back the waters of the river in its tributaries known as North and South forks, and require a long trestle over the North fork and across the ravine in which it flows.

At a place called Deer creek, about five miles above Hanging rock, a dam can be constructed for storage purposes at an expense of one-fourth of that requires for an 85-foot dam at Hanging rock and with equal storage capacity, and such a dam would fill every necessary requirement and would interfere with the uses of the canyon for other purposes in a much less degree than an 85-foot dam at Hanging rock.

21st. The controversy as to the particular lands in question involves the use of the whole canyon above Hanging rock for miles and also Hanging rock for a long distance on account of the necessity of commencing a raised grade for a long distance below that point in order to overcome the construction of a dam at Hanging rock.

22nd. The defendant Holbrook disclaims personal interest, but denies the right of the plaintiff. The other defendants have made and make an adverse claim to the lands in controversy as set out in their answer.

39 23rd. The defendants never intended to erect a dam 60 feet high or to any height exceeding fifteen feet at the Middle rock or in pursuance of the notice dated March 27, 1896, and have done no work indicating such an intention, and the notice was not posted at the place intended by defendant Nunn or in accordance with his intention, and the survey commenced under said notice was abandoned by the direction of defendant Nunn.

24th. The defendant has- never had a present intention or given any public printed or written notices of an intention to erect a dam to raise the water at Hanging rock 85 feet, and have never done or pursued with diligence any work to show or give notice of such an intention.

They intended to divert the water at Middle rock by a dam not more than 15 feet high, and use the power thus generated, looking to the future success of the enterprise and the future demands for

more power and a dam at Hanging rock, in the meantime performing such acts as would give them full control of the water and power of the canyon, awaiting the wants and contingencies of the future.

The defendants have never taken or had possession of the land in controversy or any land in the canyon except the land on which their flume is erected, and perhaps a constructive possession or claim of possession to so much *of* a dam 15 feet high at Middle rock would flow.

26th. The plaintiff by the location and survey of its railroad and the commencement of work took and had possession and right of possession of the land in controversy and all the possession and right of possession of its surveyed line that the nature *nature* of the property and the uses to which it was to be applied permitted.

27th. A dam that would raise the water 85 feet at Hanging rock or any dam higher than one 15 feet high at Middle rock would be, under all the circumstances surrounding this case, unreasonable, unnecessary, and not in accordance with the customs and conditions of the country, hampering and thwarting other interests and enterprises of a public character from passing through this important gateway leading to the eastern portion of our country, and a higher dam in this locality is unnecessary in an adjustment of the relative rights and interests of the parties and of the public interests in the use of said canyon.

Conclusions of Law.

As conclusions of law I find:

1st. That the plaintiff prior to the commencement of this suit had the possession, right of possession, and the inchoate title, subject to a condition subsequent which could be performed at any time within a year after the Government survey, in and to the lands described in the complaint.

2nd. That the defendant "The Telluride Power Transmission Company" has no corporate power in Utah to engage in generating electric power for sale.

3rd. That the defendants have never had the title, possession, or right of possession to said lands or any part thereof or acquired any vested right in accordance with the laws or customs of the country, or any right to flow or otherwise occupy said lands or any part thereof, or to prevent the use and occupation thereof by the plaintiff for railroad purposes, and that the adverse claim of the defendants to said lands or to the possession or occupation thereof is unfounded and invalid.

4th. That the plaintiff is entitled to judgment quieting and confirming its possession and right of possession of said lands as against the defendants and all persons claiming through or under them and enjoining the defendants and each of them and all persons acting under them from interfering with the plaintiff*f* or interrupting it in the use and occupation of said lands and from hindering or

obstructing the plaintiff in the construction and operation of railroad thereon and thereover; also enjoining the defendants
42 and each of them from erecting a dam in Provo river at any point or place which will flow a railroad to be constructed by the plaintiff on the grade of the survey now made therefor on and over said lands, and for costs of suit; and judgment accordingly is ordered.

WARREN N. DUSENBERRY,
Judge Fourth Judicial District Court, Utah.

Indorsed: Filed at Provo City, Utah, April 17, 1897. George Havercamp, clerk, by A. V. Robinson.

43 In the District Court of the Fourth Judicial District, State of Utah, County of Utah.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. Nunn, and L. Holbrook, Defendants.
} Judgment.

Findings of fact and conclusions of law having been made and filed, now, in accordance therewith and on motion of plaintiff's attorneys, it is adjudged and decreed—

That the plaintiff at and prior to the time of the commencement of this suit was and still is the owner, subject only to the paramount title of the United States, and was in and entitled to the possession, for a right of way and for railroad uses, of the lands described in the complaint, to wit:

A strip of land two hundred feet wide and one hundred feet wide on each side of centre line of the survey thereof, being on and over unsurveyed lands of the United States, and on and over what it is estimated will be, when said lands are surveyed and subdivided, the northeast quarter of the northwest quarter of section thirty-four (34), and the north half of the northeast quarter of section thirty-four (34), and the southeast quarter of the southeast quarter of section twenty-seven (27), of township five (5) south, of range
44 three (3) east, of the Salt Lake meridian, said strip of land being in or near the bottom of the Provo canyon, in Utah county, State of Utah, on the south side of and following near to the course of Provo river, the entire line of said strip commencing at station 643 + 40 of the survey of said line of railway of plaintiff as now located thereon, about one thousand feet, more or less, up the river and northeasterly from a point in the canyon called "Hanging rock," which point is about 715 feet, more or less, north and 200 feet, more or less, west from where it is estimated the common corners of sections 26, 27, 34, and 35 of said township will be when the township is subdivided, and thence running southwesterly down said river and canyon, on the southerly side of the river, and following the centre line of the survey of plaintiff's railroad as

located and staked, a distance of thirty-five hundred (3,500) feet, more or less, and to or near to station 608 of said centre line, together with 100 feet in width on each side of said centre line. The stations of the survey are each 100 feet in length and the strip contains 16 acres, more or less.

That the defendants have not nor has either of them at any time acquired or had any right, title, possession, or right of possession in or to said lands or any part thereof, or any right to flow the same by a dam in said river or otherwise, and their adverse claim and the adverse claim of each of them to said lands and their claim of a right to flow or submerge the same is invalid, and the title, possession, and right of possession of the plaintiff in and to said lands for a right of way for its railroad as against the defendants
45 and each of them is hereby adjudged valid and confirmed and quieted.

And it is further ordered and adjudged that the defendants and each of them, and the agents, servants, and employees of the defendants and each of them, and all the persons acting under the defendants or either of them, do absolutely desist and refrain from interfering with the plaintiff's possession of said described lands and from obstructing or hindering the *the* plaintiff, its agents and employés, in constructing and operating a railroad on the line and level now surveyed on said land, and from *following* or submerging said land by a dam or by any obstruction of the waters in Provo river, or in anywise hindering, delaying, or obstructing the construction and operation of a railroad on the line and at the level the same is now located and surveyed on and over said land.

And it is further adjudged that the plaintiff have and recover its costs of suit, taxed at $212.35.

By the court:

WARREN N. DUSENBERRY, *Judge.*

Indorsed: Filed at Provo City, Utah, April 22, 1897. Geo. Havercamp, clerk, by A. V. Robinson, deputy.

46 In the District Court of the Fourth Judicial District of Utah, in and for the County of Utah.

THE RIO GRANDE WESTERN RAILWAY CO., Plaintiff,
vs.
L. L. NUNN, THE TELLURIDE POWER TRANSMISSION CO., and L. Holbrook, Defendants. } Notice.

To the above-named plaintiff and to Bennett, Harkness, Howat and Bradley, its attorneys:

Take notice that the defendants L. L. Nunn and The Telluride Power Transmission Company intend to move the court to vacate and set aside the order and decree rendered in the above-entitled cause and to grant a new trial of said cause on the following grounds, to wit:

Insufficiency of the evidence to justify the finding of fact, and that they are against law.

Errors of law occurring upon the trial and excepted to by the party making application.

That the findings of fact do not warrant the conclusions of law.

That the pleadings, findings of fact, and conclusions of law do not authorize the decree rendered.

Said motion will be founded upon a statement and bill of exceptions to be hereafter prepared and served upon you.

BROWN & HENDERSON,
Attorneys for the Above-named Defendants.

Indorsed: Filed at Provo City, Utah, April 28th, 1897. Geo. Havercamp, clerk.

47 In the District — of the Fourth Judicial District, State of Utah, Utah County.

RIO GRANDE WESTERN RAILWAY COMPANY, a Corporation, Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. Nunn, and L. Holbrook, Defendants.
} Notice of Appeal.

You will please take notice that the above-named defendants, The Telluride Power Transmission Company and L. L. Nunn, hereby appeal to the supreme court of the State of Utah from the final judgment and decree therein made and entered in the said district court on the 17th day of April, A. D. 1897, in favor of said plaintiff/ and against said defendants, and from the whole thereof. Dated June 9th, 1897.

BROWN & HENDERSON,
Attorneys for said Defendants.

To the clerk of said district court and to Messrs. Thurman & Wedgwood and Bennett, Harkness, Howat & Bradley, attorneys for said plaintiff, and to L. Holbrook, one of said defendants.

Indorsed: Notice of appeal. Service of a copy of the within notice of appeal duly acknowledged this 9th day of June, 1897. Thurman & Wedgwood, Bennett, H., H. & B., att'ys for plaintiff. Filed at Provo City, Utah, Jun- 9, 1897. Geo. Havercamp, clerk.

48 STATE OF UTAH:

Fourth Judicial District Court.

RIO GRANDE WESTERN R'Y CO.
vs.
L. L. NUNN ET AL.

Bill of Exceptions, Statement on Appeal, and Statement on Motion for New Trial.

Service admitted this 27th day of May, 1897.
BENNETT, HARKNESS, H. & B.,
Att'ys for Pl'ff.

Filed at Provo City, Utah, Jun- 6, 1897.
GEO. HAVERCAMP, *Clerk.*

49 In the District Court of the Fourth Judicial District, State of Utah, Utah County.

RIO GRANDE WESTERN RAILWAY COMPANY, a Corporation, Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, and L. Holbrook, Defendants.

Said cause came on for trial without a jury before the court at Provo City, March 29th, 1897. The trial thereof was continued until April 7th. On said trial the following proceedings were had, which have been proposed by said plaintiff as a statement on motion for new trial, statement on appeal, and bill of exceptions. The following constitutes the statement of all the proceedings had thereon, except as otherwise hereinafter stated.

Filed at Provo City, Utah, Jun- 6, 1897.
GEO. HAVERCAMP, *Clerk.*

50 In the District Court of the Fourth Judicial District of the State of Utah in and for Utah County, March Term, 1897.

Before Hon. Warren N. Dusenberry, Judge.

RIO GRANDE WESTERN RAILWAY COMPANY, a Corporation, Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, and L. Holbrook, Defendants.

This cause was tried before the court, sitting without a jury, at Provo City, Utah county, State of Utah, on March 29th, 30th, and 31st, and April 1st, 2nd, 3rd, 4th, 5th, 6th, and 7th.

Appearances.

For the plaintiff: Bennett, Harkness, Howat & Bradley and Thurman & Wedgwood.
For the defendants: Brown, Henderson & Bailey.

Transcript of testimony offered by plaintiff in chief, and portions of the defense and rebuttal testimony.

D. H. ROBERTS,
Official Reporter.

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53 Mr. BROWN: May it please your honor, in these cases we object to any proceedings being had in this court whatever, on the ground that the court has no jurisdiction. A petition to remove the case to the United States court was filed last December. I am informed, I do not know, that the matter was called to the attention of Judge Hatch. He declined to think that they were sufficient. That may or may not be true; I don't know as to that. It is immaterial, in my opinion, anyway. Afterwards the papers were certified to the United States court. The plaintiff has there made a motion to remand to this court, and it has not yet been decided, I understand.

The COURT: The matter is still pending in the United States court?

Mr. BROWN: The matter is still pending in the United States court. My objection is that this court cannot proceed; that the jurisdiction of the court is determined by the United States court and not by this, and any attempt to proceed on the part of this court is an attempt to strike against the jurisdiction of the higher court. We have prepared an objection in writing which is the same as that I have stated. I don't know that it is necessary to read them; I might read one of them, though. (Reads objection.)

Mr. HARKNESS: I can save you a little time. The cases have been remanded at the cost of the party asking for their removal (& reads telegram showing the remand from U. S. c't ct).

Mr. BROWN: All right; I did not know that.

The COURT: I understand you, Mr. Brown, that this matter was formally presented to Mr. Hatch?

Mr. BROWN: Yes, sir.

The COURT: What was his ruling?

Mr. HARKNESS: He held that the petitions were insufficient and

refused to remove the case. The parties on the other side, however, went to the clerk and got certified copies and filed them.

54 Mr. BROWN: And of course, for the purpose of reserving our rights in this matter, while we can't except to the ruling of the higher court here, I wish to add this objection, that we insist that the case would properly be triable in the United States court; and we save our point on that ground.

Statement of the case by Mr. Wedgwood.

Mr. HARKNESS: We offer in evidence proof of the organization of the Denver and Rio Grande Western Railroad Company, certified by the auditor and secretary of state.

The COURT: A certificate, you say, of their organization?

Mr. HARKNESS: Yes; it is the articles itself certified.

Mr. BROWN: Of another company?

Mr. HARKNESS: Yes.

Mr. BROWN: Not of this company?

Mr. HARKNESS: Not of this company, plaintiff.

Mr. BROWN: What is the purpose of offering these articles of another company?

Mr. HARKNESS: Well, we allege in our complaint that the Rio Grande Western Railway Company is a consolidated corporation.

The COURT: That is the copy of the organization of the former Rio Grande Western?

Mr. HARKNESS: The Denver and Rio Grande Western.

Mr. BROWN: I object to it, may it please the court, as entirely immaterial here. I haven't been specially over it, but the first objection is that it is immaterial, because this is the articles of a distinct, different company.

Argued to the court by Mr. Brown.

Mr. HARKNESS: Of course, we can't prove the whole allegation with one paper.

The COURT: Do you propose to follow the matter up?

55 Mr. HARKNESS: We propose to follow it up with other papers.

The COURT: If it is not, it will not be considered.

Mr. BROWN: But the articles of this Denver and Rio Grande doesn't tend to show that it was in any manner connected with the Rio Grande Western.

Mr. HARKNESS: We can't show it until we introduce the articles of the Rio Grande Western.

The COURT: You propose to introduce those?

Mr. HARKNESS: Yes.

(Marked "Pl'ff's Ex. 'A,' D. H. R.;" an authenticated copy hereto annexed.)

Mr. HARKNESS: We offer in evidence a certified copy of the articles of the Denver and State Line Railroad Company, certified by the secretary of the State of Colorado and of Utah.

Mr. BROWN: I object to it for the same reason stated before, and it is immaterial; the mere introduction of that paper doesn't prove it is a corporation.

The COURT: You propose to follow it up. Let it be admitted with that understanding.

Mr. BROWN: Take an exception.

(Marked "Pl'ff's Ex. 'B,' D. H. R.")

Mr. HARKNESS: Offer certified copy of the articles of incorporation of the Rio Grande Western Railway Company, certified by the secretary of the State of Colorado and of Utah.

Mr. BROWN: I object, may it please your honor, to this document on the ground that there is nothing to show that the organization, that the corporation, in any manner was organized under the laws of the State of Colorado. This organization seems to have been an organization by agreement of the other companies, whose articles have already been placed in evidence. By agreement they call this new corporation borned. I do not think they have complied with the laws of Utah—I make that objection also, that I do not
56 think they have complied with the laws of Utah in organizing said corporation, and there is nothing to show that it was organized by the laws of Colorado. I am told there is no certificate from any officer of Utah, but I am not sure about that.

Mr. HARKNESS: Oh, yes; the certificate of the secretary of state is there.

Mr. BROWN: Yes; the certificates are here. Of course, the certificates are merely that those are the papers that were filed in the office.

Mr. HARKNESS: May it please the court, the statutes of Utah provide that two or more railroad companies that are not parallel and competing may consolidate. It prescribes the manner: the directors or officers shall make an agreement which shall be ratified by the stockholders. These articles are certified by the secretary of the State of Colorado and by the secretary of state and auditor of Utah. They show the agreement of the directors on all the terms of the consolidation and the rout-s, etc. They show meetings of each company and the ratification by the stockholders of each company strictly, as we think, in conformity with the laws of Utah. I may say now that we have sent for the laws of Colorado, and they are exactly with the laws of Utah in that respect. We will, if counsel require it, introduce the laws of Colorado on that subject.

The COURT: Without minutely looking them over, you can take an exception, Mr. Brown.

Mr. BROWN: All right, and I would like the privilege of examining these later on.

(Marked "Pl'ff's Ex. C, D. H. R.," of which an authenticated copy in lieu of original is hereto annexed.)

Mr. HARKNESS: I offer in evidence the certificate of the organization of the Rio Grande Western Railway Company and the due proofs required by the acts of Congress, certified by the Secretary of Interior.

Mr. BROWN: What due proofs do you have reference to?

57 Mr. HARKNESS: It is all the proofs they are required to file—their organization articles and the proofs under the laws

of Congress. This includes all the laws of the State, approved by the Secretary of the Interior May 27th, 1890.

Mr. BROWN: I object to the approval of the Secretary of the Interior as having nothing to do with this case. He doesn't act judicially. As I understand this bundle, it contains these same articles that you have introduced in evidence?

Mr. HARKNESS: Yes; and the laws of the two States.

Mr. BROWN: And the laws of the States. He files that in the General Land Office at Washington for the purpose of showing that he is entitled to be one of the companies entitled to enter lands through the public lands of the United States—that is, it seems to me entirely immaterial here. It doesn't lay in the power of the Secretary of the Interior or the Commissioner of the Land Office or any other officer to determine whether that is a valid corporation or not. They are like any other executive officers—like any other clerk—they file the papers when they come before them. I regard it as entirely immaterial that he has certified here.

Mr. HARKNESS: We don't offer it to show the incorporation, but that we have complied with the laws of the two States, and with the approval of the Secretary of the Interior, as their laws require.

The COURT: Take an exception, Mr. Brown.

Mr. BROWN: All right. You had better read that in evidence, hadn't you, so as to have it in the record.

Mr. HARKNESS: This approval of the Secretary reads as follows:

"DEPARTMENT OF THE INTERIOR, *May 27th*, 1890.

Respectfully returned to the Commissioner of the General Land Office for filing. The papers are in proper form and satisfactory to the department, and the Commissioner will so inform the company.

GEORGE CHANDLER,
First Assistant Secretary."

58 The COURT: Do you wish to have that marked by the reporter?

Mr. HARKNESS: Well, yes; that may be marked "D."

(Marked "Pl'ff's Ex. D. D. H. R.")

Mr. HARKNESS: I desire to offer the laws of Colorado, General Statutes of the State of Colorado, in 1883. I have those in '91; they are the same; but the '91 was after this incorporation.

Mr. BROWN: Go ahead; no objection; put in the page.

Mr. HARKNESS: Under the title "Corporations," beginning on page 180, "the general corporations."

The COURT: 1883?

Mr. HARKNESS: 1883, yes; and that portion relation to railroad corporations, commencing on page 205 and including the laws relating to consolidation, etc.

Mr. BROWN: How far does it go; from 205 to what?

Mr. HARKNESS: Including 212, I think. I may say that the articles of the Rio Grande contain a specification, among others, of the two routes mentioned in the complaint from Provo eastward.

We offer a deed from A. L. Murphy and wife to the Rio Grande Western.

Mr. BROWN: May it please the court, I object to this for this reason: This is a question that goes considerably to the merits of the case: First, it is not shown that A. L. Murphy had anything to convey; that he was in any sense the owner of these premises; as a squatter, he could not convey title to anybody else, and for that reason would become immaterial; and, of course, I recognize the rule, so far as that objection goes, that counsel could promise to make that proof.

Mr. HARKNESS: If we don't make it, the deed would amount to nothing.

Argued to the court by respective counsel.

Mr. HARKNESS: All we expect to show by this deed is
59 that there was a possessory right there—a thing, of course, that we will have to show afterward—and that we acquired that possessory right, and therefore that our title and right of possession became complete under the railway act.

The COURT: Let it be admitted, subject to subsequent proof, Judge Harkness, as the other was.

Mr. HARKNESS: Oh, yes. We don't claim any title by that, simply that he relinquished his possessory claim to us.

Marked "Pl'ff's Ex. E, D. H. R."

Mr. HARKNESS: The description is "a strip of land one hundred feet wide, being fifty feet on each side of the center line of the Rio Grande Western railway, Park City branch, as now located across the land of grantors, said lands being unsurveyed Government lands and situated above the first bridge in Provo canyon and below the mouth of the South fork in said canyon, said claim being more particularly described as being bounded on the east by the claim of W. W. Ferguson, and extending west therefrom over and across three forty-acre claims to a point about one hundred rods above said first bridge, said right of way containing ten acres, more or less."

Mr. BROWN: What is the date of that?

Mr. HARKNESS: The date is June 26th, 1896.

Mr. BROWN: June 26th, 1896, and acknowledgment the same day?

Mr. HARKNESS: Yes.

Recess taken until 1.30 o'clock p. m.

Resumed session at 1.30 p. m.

A. L. MURPHY sworn for plaintiff.

Examined by Mr. WEDGWOOD:

Q. Mr. Murphy, I will ask you to look at that paper. Do you recognize it?

A. Yes, sir.

Q. This is "Pl'ff's Ex. E." Do you know the property men-
60 tioned in there?

A. Sir?

Q. Do you know the property mentioned in that deed?
A. Yes, sir.
Q. Are you the signor of that deed?
A. Sir?
Q. Are you the signor of that deed?
A. Yes, sir.
Q. You are the A. L. Murphy mentioned there?
A. Yes, sir.
Q. Did you ever occupy that land?
A. Yes, sir.
Q. When did your occupation commence?
A. Well, it was some time in October, 1895.
Q. What is the description of the land by natural objects, as near as you can give it—where is it?
A. It is in Provo canyon.
Q. About how far from the mouth?
A. It is about four and a half mioes from the mouth of the canyon, possibly farther.
Q. Now, give it by natural objects as near as you may.
A. Well, I can describe it by—there was the second falls in Provo canyon—was near the center of the place—running east and west, as near as I can describe the location of it, and the Hanging rock, that is well known in Provo canyon; that was about forty rods from the east—from the east line, I should judge.
Q. Forty rods which way?
A. West, or southwest rather.
Q. Down the river?
A. Down the river from the east line.
Q. That was about the center?
A. No; that was about forty rods from the east side of the place.

Mr. BROWN:

Q. What does he call that now?

Mr. WEDGWOOD:

Q. Hanging rock. And how far in relation to the line of the Provo bridge, if you know?
A. Well, I should judge it was about a hundred rods from the Provo bridge to the line down the river, to the lower line.
Q. What would that lower line be by the point of the compass?
A. I think it would be the west line; it runs diagonally;
61 the lines run diagonally.
Mr. BROWN: That is, the west line would be a hundred rods from Provo bridge; is that what he means?
A. Yes, sir.

Mr. WEDGWOOD:

Q. Which way, below or above the bridge?
A. Above the bridge.
Q. Now, where would the east line be?

A. It would be about forty rods up the river from this Hanging rock.

Q. And joining any other known or occupied piece of land?

A. It was joining the land of Billy Ferguson.

Q. And how long would that be, then, up and down the river between the hundred rods below the bridge and to the farthest extent?

A. Three-quarters of a mile, I think.

Q. Now, what was the nature of your occupation of that, what did you do, at the time you mentioned, about October, and after that time?

A. Well, I went to work and built a house there; a cabin, rather.

Q. When did you do that?

A. Some time in October of 1895; I don't remember the exact date.

Q. Live in it?

A. Yes, sir.

Q. How long a time?

A. I lived in it from October to March.

Q. Anybody with you?

A. Yes, sir; my wife and my brother.

Q. Your family; is that your family?

A. Yes, sir; my wife. My brother was staying with us.

Q. Did you do anything in the way of improvements on the ground at any time?

A. No more than to clean off the brush, the brush through the ground, and make a water ditch to carry the water down to the house.

Q. Build any ponds, or start to, or anything of that kind?

A. I started to; yes, sir.

Q. Set out any trees or fruit or anything of that kind?

62 A. I put out a few trees and quite a number of raspberrie plants.

Q. And how long did you occupy there, live there, at that time?

A. From October to the first day of March; some time in October; I don't remember the exact date.

Q. To the first day of March, 1896?

A. To the first day of March, 1896; it was in 1895 when I went on the place.

Q. And did you cause any of this fruit to be set out after that time, after March?

A. Yes, sir; it was all set out after March.

Q. Now, what was the nature of your occupation of that land, your intention?

A. It was my intention——

Mr. BROWN: Object to what his intent was as immaterial.

Mr. WEDGWOOD: If the court please——

Q. Are you a citizen of the United States?

A. Yes, sir.

Q. Now, I will ask you what was your object——

Mr. BROWN: That is the same thing.
Mr. WEDGWOOD: Yes; it is the same thing.

Q. In building a cabin upon that land, moving there, living there, building a ditch, and setting out fruit and trees——

Mr. BROWN: Well, let it go.

A. It was my intention to homestead the land whenever it was surveyed; put a homestead filing on it was my intention.

Mr. WEDGWOOD:

Q. Did you put up any marks at the boundaries or any place on the claim?
A. I only put up one.
Q. Where was that?
A. That was near the east line; just a board, stating that I claimed that land.
Q. Remember just what was on it?
A. I wrote on it "Claim of A. L. Murphy" and the date it was put there; I don't remember the date it was put there.
Q. But it was about October, 1895?
A. Yes, sir; in the first part of October.

63 Cross-examination.

By Mr. BROWN:

Q. This little thing that you stuck up, you said, "Claim of A. L. Murphy," did that define the number of acres that you claimed?
A. No, sir.
Q. That was all there was to it, "The claim of A. L. Murphy," was it?
A. Yes, sir.
Q. How far was that from the house that you built?
A. That was a half a mile.
Q. A half a mile away from the house?
A. Yes, sir.
Q. Above or below the house?
A. Above.
Q. How?
A. Above the house, up the river.
Q. You built a house a half a mile below where you put this board, "Claim of A. L. Murphy." What did you put it on?
A. A board.
Q. That is, the words were written on a board; what did you put the board on?
A. Oh, I nailed it onto a tree.
Q. Did you nail it on or tie it on, or how did you fasten it?
A. Nailed it onto a tree.
Q. Nailed onto a tree a board with the words, "Claim of A. L. Murphy"?
A. Yes, sir, and date.

Q. That is the only mark that you ever put on all these premises that have been described?

A. Yes, sir; that is the only mark that I put on it; that is——

Q. (Interrupting.) No indication, anyway, as to how many acres you expected to get anywhere?

A. No, sir; I think not.

Q. And you didn't declare your intention in any paper to get—acquire this land as a homestead?

A. No, sir.

Q. How old are you, Mr. Murphy?

A. I am passed 30.

64 Q. Did you ever own any land elsewhere?

A. No, sir; I do not think I ever had a clear title to any land before.

Q. Had you ever started to homestead any other land?

A. Yes, sir; I had started to.

Q. Whereabouts?

A. In Kansas.

Q. How far along did you get with that homestead?

A. I homesteaded forty acres in Kansas.

Q. Yes?

A. I never perfected the title.

Q. How many years did you live on it?

A. Never lived on it.

Q. Did you file your declaration upon it?

A. Sir?

Q. Put in a declaration at the land office?

A. Yes, sir.

Q. Filed a declaration at the land office for forty acres in Kansas?

A. Yes, sir.

Q. What land office was it?

A. At Overland, Kansas.

Q. About when was it you filed that declaration?

A. That was before 1887—prior to 1887.

Q. Any other place or time did you make any attempt to acquire a homestead?

A. No, sir.

Q. On public land?

A. No, sir.

Q. When you spoke of knowing the property that is in the deed, you had reference to the general description, not to the railway line, I suppose?

A. Why, it is the general description.

Q. You don't pretend to know exactly where the profile of the railway survey would be?

A. No, sir.

Q. And premises described in that deed, if I understand—I want you to understand it perfectly—the premises described in that deed are fifty feet on each side of the road as now located—fifty feet on each side of the Rio Grande Western, Park City branch, as now

located across the land, etc.; you don't mean to say that you
65 know exactly where that was as located on the 22nd of June, do you?

A. No; I know where their stakes were, but I don't know that they were permanent.

Q. You made no survey of that so that you could put it in any definite way to us?

A. At that time I knew about where the stakes were, but I could not describe to you.

Q. Which side of the river were they at that time?

A. They were on the north side of the river.

Q. On the north side of the river?

A. Yes, sir.

Q. The stakes and premises that you understood you conveyed were on the north side of the river?

A. Yes, sir.

Q. That is, on the left-hand side as you go up?

A. Yes, sir.

Q. On the same—was your house on that same side?

A. Yes, sir.

Q. What has become of that house; is it there yet?

A. I do not think it is.

Q. Did you take it away?

A. I took part of it away.

Q. When did you take it away?

A. I could not tell exactly. It was some time in October last.

Q. October, 1896?

A. Yes, sir.

Q. Where did you take it to?

A. I took it down to a bridge—part of it—and brought a few boards——

Q. (Interrupting.) Did you build there at the bridge with it?

A. No, sir.

Q. What did you do with that part you took to the bridge?

A. I let a gentleman have it there.

Q. Who was the gentleman?

A. Mr. Thayer.

Q. Oh, you gave it to Thayer. What did you do with the rest of it?

A. I brought part of it in town here.

Q. Did you build in town here with the other part?

66 A. Built a pig-pen.

Q. Why did you tear your house down?

A. Because I needed the lumber in town.

Q. You didn't intend to live there any longer, then?

A. I didn't intend to live there this past winter.

Q. You say you haven't lived there since March, 1896?

A. No, sir; I haven't made my home there since then.

Q. For more than a year you have left these premises; haven't lived there at all this last year, have you?

A. No, sir; not to make my home there.

Q. Well, have you lived there?
A. I have been there several times.
Q. Well, have you lived on the premises in any way since the first day of March, 1896—any part of it?
A. No; I have been there; I lived there while I was there.
Q. Been there working for somebody, haven't you?
A. No, sir; working for myself when I was there.
Q. Working for yourself?
A. Yes, sir.
Q. When was you there working for yourself?
A. Well, some time in May was the last, I believe.
Q. That was the last?
A. Yes.
Q. Since May you haven't done anything for yourself up there?
A. No, sir.
Q. What were you doing in May, 1896, up there?
A. Putting out some plants up there.
Q. What kind of plants did you put out?
A. Some peach trees, raspberries——
Q. How many peach trees did you put out?
A. I do not know exactly the number, sir.
Q. Have you seen them since?
A. Yes, sir.
Q. Are they there?
A. They were the last time I was there.
67 Q. Whereabouts were they?
A. They were near where my cabin stood.
Q. Near your cabin?
A. Yes, sir.
Q. Peach trees?
A. And there were some plum trees. I don't remember exactly the number.
Q. And some raspberries?
A. Yes, sir.
Q. When did you put the raspberries there?
A. I think it was about the first of Mat, last year.
Q. First of May you put some raspberries, plums, and peaches, but don't remember the number of peaches or plums. Any other things?
A. No, sir.
Q. What have you been doing since?
A. I have been gardening last summer.
Q. Whereabouts?
A. In Provo canyon, about three miles below the place; I claimed up there.
Q. Three miles—that is, south; you went to gardening?
A. Yes, sir.
Q. On public domain?
A. No, sir.
Q. Or on private property?
A. On private property.

Q. Whose property was it?
A. It belonged to Mr. Carter.
Q. And this winter what have you been doing?
A. Haven't been doing much of anything this winter.
Q. You don't still live on Carter's place?
A. No, sir.
Q. Been living here in the city?
A. Yes, sir; since October.
Q. October; was that when you brought down that lumber for a pig-pen down here, was it?
A. Yes, sir.
Q. And living here. You brought away your house from these premises and put up a pig-pen here in town?
A. I removed most of it from the—the most part of the lumber I took away.
Q. Living in your own premises here in town?
A. No, sir.
68 Q. Or rented?
A. Rented.
Q. Who did you rent of?
A. Well, I rent from a Mr. Ray, the agent of the property.
Q. Who is Ray; what is his business?
A. He is a railroad man—car inspector.
Q. He is a railroad man for the D. & R. G., isn't he?
A. He is car inspector for the Oregon shortline.
Q. For the Oregon shortline?
A. He is agent for the property I am living in.
Q. You rented of him; and what have you been doing here this winter?
A. Well, I haven't done anything until lately, until the last month. I worked a while in February for the Union Pacific.
Q. Did you ever go to any corner—any Government corner—of this land?
A. Up there?
Q. Yes.
A. I could not find any.
Q. Could not find any; never went to any. Ever get anybody to survey the property?
A. No, sir.
Q. Never have, or where it would come if surveyed?
A. Sir?
Q. Or where these corners would fall if surveyed?
A. Yes; I know about where they were.
Q. Who showed them to you?
A. I was shown about where the township line went.
Q. By whom?
A. By Mr. Thayer—G. W. Thayer.
Q. Never have had any surveyor figure them out for you?
A. No, sir.
Q. And you never have seen where these corners were?
A. No, sir; I don't know exactly where the corners are.

Q. Don't know where they would be, any of them?
A. It was impossible to determine exactly where they were at.
69 Q. Did you work any for Mr. Nunn or any of the defendants here?
A. Yes, sir.
Q. When?
A. I began working for them about the 4th of November, 1895.
Q. What doing?
A. Cutting brush.
Q. How long have you been cutting brush there?
A. I started to cut brush the first day they commenced work there, so far as I know. They were surveying before, but that is——
Q. (Interrupting.) Before you went there they were surveying, weren't they?
A. No, sir.

Mr. WEDGWOOD: If the court please, we object to this as not proper cross-examination.
Mr. BROWN: Well, I don't care anything about it.

Q. You say you cut brush for them in November 4th. Whereabouts was it you cut brush?

Mr. WEDGWOOD: Wait a minute. We object to it as not proper cross-examination.
Mr. BROWN: I want to show his intent. I have a right to show all his acts; show what he was doing; trace him through this time. If it was proving up a homestead at the end of five years, I would have a right to see what he had done all those five years.
The COURT: I think the question is proper.
Mr. WEDGWOOD: It may be so far as what he was doing, but as to other parties it is not proper.

Mr. BROWN:

Q. I will ask him where he cut the brush. He said he cut it for these defendants. Now, where was it?

Mr. WEDGWOOD: We object to that as not proper cross-examination.
The COURT: You may answer the question. Take an exception.
Exception taken.

Mr. BROWN:

Q. Where did you cut the brush?
70 A. I began cutting brush about forty rods above the bridge, as near as I can remember.
Q. And cut clear up onto your premises?
A. No, sir; cut the other way.
Q. Cut down the premises?
A. Yes, sir.
Q. You commenced forty rods above the bridge and cut down?
A. Yes, sir.

Q. Didn't cut any on your premises?
A. No, sir; not while I was working for the power company.
Q. I mean for the defendants. They did cut brush upon your premises, didn't they?

Mr. WEDGWOOD: We object to that.
Mr. BROWN: I propose to show that he did it.
The COURT: Well, ask the question that way, Mr. Brown.
Mr. BROWN: Well, while he was there with them.
The COURT: He can answer that question, whether he was there with them or not.

Mr. BROWN:

Q. There was brush being cut there, wasn't there, in the fall of 1895?
A. No, sir; not on my premises; no, sir.
Q. And didn't you see it cut and help to cut it?
A. No, sir; I cut brush there on my own account only.
Q. When?
A. 1895.
Q. 1895?
A. Yes, sir.
Q. Didn't you get pay for that from the defendants?
A. No, sir; not when I was working on the land that I claimed I wasn't.
Q. Didn't get any pay for that?
A. No, sir.
Q. What was the purpose for which you were cutting brush there in the fall of 1895?
A. My intention was to clean up the ground, so that I could plant something in it.
71 Q. That was the place where you cleared for your house; you had to cut the place for that, didn't you?
A. Yes, sir.
Q. It was all covered with brush, wasn't it?
A. Yes, sir.
Q. And you cut the first brush for a place for a house?
A. Yes, sir.

Redirect examination.

By Mr. WEDGWOOD:

Q. You spoke about Mr. Thayer. Who is Mr. Thayer?
A. He is a gentleman living up in the canyon; Mr. George W. Thayer is all I know.
Q. Whereabouts with reference to this land you occupy?
A. He lived about a hundred and sixty or 180 rods down the river from my place, I think.
Q. You said he showed you the corners?
A. No.
Q. Or showed you where they would be approximately?

A. He showed me about where they would come, where the land would lay.

Q. What corners?

A. No corners at all.

Q. Well, where the line would lay with reference to his line?

A. He showed me about where the township line was, and the line of Billy Ferguson's.

Q. The line of Ferguson's?

A. Yes, sir.

Q. Did he have a claim there, do you know?

A. Thayer?

Q. Yes.

A. Yes, sir.

Q. That joined yours on the south?

—. No, sir; there was forty or eighty rods between our claims, I don't know exactly which.

Q. Forty or eighty rods, that would be forty acres between your places?

72 A. There was forty acres between; there was a vacant forty left between my claim and his.

Q. And then your claim ran to the Ferguson claim?

A. Yes, sir.

Q. Now, Mr. Murphy, why did you move your house, what induced you to move that, if anything?

A. Because that Mr. Cramer asked me to move it.

Q. Did he pay you anything for it?

A. Yes, sir.

Q. Who is Mr. Cramer?

A. I understand that he is the engineer for the power company.

Q. What did he pay you for moving it?

A. He paid me twenty dollars.

Q. Is that what induced you to move it?

A. Yes, sir; nothing else.

Q. When was that?

A. I believe that was in April, 1896; I am not positive.

Q. About that time?

A. It was about that time.

Recross-examination.

By Mr. BROWN:

Q. Was it in the way of their operations at that time?

A. Well, I believe it was.

Q. You believe it was?

A. Yes, sir.

Q. And he said he would give you twenty dollars to move it off out of the way?

A. Yes, sir.

Q. When was it—I want to ask you again on that same question I asked you on cross-examination before—when you cut the brush for yourself up there?

A. Well, I began cutting brush at all my leisure time when I was there.

Q. Well, can you give me some definite dates when you was cutting brush on your own account or when you was cutting brush on your premises?

73 A. All during the winter, whenever the weather was so I could be outside.

Q. All during the winter of 1896?

A. Yes, sir.

Q. And in November and December?

A. Yes, sir. Well, in part of November I worked for the power company; I don't know how long, exactly.

Q. Part of November was you cutting brush on your own premises?

A. I was.

Q. On your own premises?

A. Part of the time, I think.

Q. Was anybody else dealing with you about this matter of the twenty dollars besides Cramer?

A. No, sir; he is the only gentleman that spoke to me.

Q. The only man that talked to you about it?

A. Yes, sir.

Q. Mr. Nunn didn't talk about it—L. L. Nunn?

A. No, sir.

Q. Did his brother, the other Nunn?

A. No, sir.

Q. Or any other man up there besides Cramer?

A. Nobody but Mr. Cramer ever spoke to me about it—that is, that I know of.

Q. And he was working with what is now you understand to be the defendants, the power company or Mr. Nunn?

A. Yes, sir.

Q. What was he doing himself at this time?

A. Mr. Cramer?

Q. Yes.

A. He came down the canyon with Mr. Thayer.

Q. I don't mean that particular day. What was his business up there? Chief engineer, was he?

A. I believe so, as I understood it.

Q. He came down with you and Mr. Thayer and told you he would give you twenty dollars if you would move it?

A. Yes, sir.

Q. Did he talk to you on more than one occasion?

A. No, sir.

Q. It was on that one occasion, that one conversation, that

74 he agreed to give you the twenty dollars?

A. He agreed to give me the twenty dollars at the time.

Q. Well, you got your twenty dollars?

A. Yes, sir.

Q. To move it, and after you moved it you got your twenty dollars?

A. Yes, sir.

Redirect examination.

By Mr. WEDGWOOD:

Q. Where was this house of yours—down how near the railroad survey?

A. It was very near the survey. I think the railroad survey went within a few feet of the house.

Q. Within a few feet of the house?

A. Yes, sir.

Q. About how far?

A. Well, as near as I can remember, it was not more than three or four feet.

Q. You mean the center line or the outside?

A. Well, the stakes—I don't know what the stakes were; the center line or what they were.

E. J. YARD sworn for the plaintiff.

Examined by Mr. WEDGWOOD:

Q. Mr. Yard, what is your business?

A. Civil engineering.

Q. For how long have you been civil engineering—how many years?

A. Seventeen years.

Q. As a civil engineer, what branch of business—what has been your business—what have you been engaged in during that time?

A. Almost entirely railroad engineering.

Q. Where—who are you employed by at present?

A. The Rio Grande Western.

Q. What position do you hold?

A. Chief engineer.

Q. Do you know the strip of country adjacent to Provo, lying northeasterly of Provo City? Do you know the country?

75 A. Yes, sir; I am familiar with it.

Q. What kind of a country is it—what is its topographical character north and northeasterly from Provo City?

A. It is an open valley for six miles, following up the Provo river, from which point or at which point it enters a canyon, through which the river passes for about ten or twelve miles.

Q. And further up, as far as Daniel's canyon, is it still in Provo canyon?

A. It is. At the head of Provo canyon it opens out into the Utah valley—Provo valley—which is an open valley for some seven or eight miles, to where it enters Daniel's canyon.

Q. I will ask you, Mr. Yard, what would be the line of a railway from the city of Provo, in Utah county, to a point on the eastern boundary line of Utah where the same is crossed by the valley of the White river, passing into or through the counties of Uintah, Wasatch, and Utah, running in a northeasterly direction from Provo.

A. The natural routh and *both* practical route would be to follow

up Provo river to a point in Provo valley near the town or either Charleston or Heber, from which point it would follow up Daniel's creek to the summit of the divide between the Strawberry drainage and the Provo drainage, and from that point it would follow down the Provo river—down the Strawberry river—to Duchesne, and thence up the White river to the eastern boundary of Utah.

Q. Not I will ask you, Mr. Yard, what would be the line of a railway running northeasterly and easterly from Provo City from a point at or near Provo, in Utah county, to a point at or near the mouth of the Duchesne fork of the Uintah river, in Wasatch county, passing into or through the counties of Uintah, Wasatch, and Summit.

A. It would coincide with the route I gave in answer to the last question.

Q. That is, down as far as the Duchesne fork?

76 A. That is, down as far as the Duchesne fork; yes, sir.

Q. Now, they would coincide, you say—from where to where would they coincide?

A. From Provo to the Duchesne fork.

Q. That is, the lines would be identical?

A. That is, the lines would be identical.

Q. Now, what do you say, Mr. Yard, as to whether or not a route up Provo canyon is the only feasible route for those railroads described?

A. Yes, sir; it is the only practicable route.

Q. Mr. Yard, has the company for which you are working, the Rio Grande Western, made a survey for those routes or part of either one or both?

A. It has made a survey for a route as far as the sumit on Daniel's creek.

Q. When did they do that?

A. During the past year.

Q. State where Daniel's creek is, Mr. Yard.

A. Daniel's creek is a tributary of the Provo drainage—Provo River system—which heads at the divide between Strawberry valley and the Provo valley. It is on the divide between Provo valley and the Strawberry valley.

Q. Does that creek—Daniel's creek—empty into Provo river?

A. Yes, sir; it is a tributary of the Provo river.

Q. And about how far from Provo City?

A. About 20 miles—20 or 22 miles.

Q. How far has the line been surveyed from Provo up Daniel's creek?

A. It is about forty miles.

Q. Forty miles?

A. Yes, sir.

Q. You say there was a survey made; when was it made?

A. It was made during the last summer and fall.

Q. Can you tell when it commenced—the actual work?

A. It commenced some time in March of 1896.

Q. Now, you say there was a survey made. What do you mean?

What was done? What do you mean by the word survey?
77 What was the acts that was done?
A. The center line of the railway was marked on the ground by stakes set one hundred feet apart.
Q. And field-notes made?
A. Field-notes were made and data collected sufficient to enable a plat and profile of the line to be made.
Q. Did that comprehend the work sufficient to begin construction?
A. Yes, sir.
Q. And the making of specifications for laying the track?
A. Sufficient to form an estimate of the cost.
Q. And sufficient to proceed to construction on?
A. Sufficient to proceed to construction on.

Q. Mr. BROWN: He has not said so. Let him testify.
Mr. WEDGWOOD: Well, excuse me.

A. Subject to some revision. The line might have to be changed at minor points.
Q. Was it a survey of location?
A. It was a preliminary location; what was called a preliminary location.
Q. Was there a map made of that?
A. Yes, sir.
Q. Have you got it?
A. Yes, sir——
Q. (Interrupting.) You may produce it.
A. (Continuing.) A portion of it.

Mr. BROWN:

Q. Let me see it, if you are going to introduce it. Go ahead.

Mr. WEDGWOOD:

Q. Is this the map that was made of the survey of the line up the canyon?
A. Yes, sir.
Q. And for how many miles from Provo City?
A. Twenty miles.
Q. Now, did you do the actual work of that surveying yourself?
A. No, sir.
Q. Who did?
A. Mr. Baxter had charge of the party.
Q. And who under him?
A. He had various assistants, several assistants.
78 Q. And this work of preparing the plat was done where?
A. In my office, in Salt Lake.
Q. And under whose supervision?
A. Under my supervision.
Q. Do you know the piece of ground in controversy in this case?
A. Yes, sir.

Q. Know where it is on the ground, approximately?
A. Yes, sir.
Q. Is it comprehended within the survey of this line?
A. The surveyed line passes over the ground in question; yes, sir.
Q. About how much of it?
A. About three-quarters of a mile.
Q. And how far in width, how much in width?
A. Two hundred feet in width; 100 feet on each side of the center.
Q. Now, what caused you to make this survey? Who directed it?
A. It was done by the direction of the general manager of the road.
Q. Who is that?
A. D. C. Dodge.
Q. Were you on the ground at any time?
A. Yes, sir.
Q. How many times or about how—what was your opportunity in this—what did you do?
A. Oh, probably not more than four or five times.
Q. I just show you the map attached to the complaint in this case, Mr. Yard, and let you look at it. What does the plat represent?
A. It represents the line of the proposed line of the railroad across the claim, the land claimed by A. L. Murphy.
Q. Now, I will ask you, Mr. Yard, in the construction of a railroad up Provo canyon on the lines that have heretofore been designated, whether that strip of ground is necessary for the use and construction of the road.

Mr. BROWN: I object to that, may it please the court. I do not think that that should be sworn to by the witness merely; it is indefinite, what is meant by that strip of ground, whether it means the whole three forty*s* or the one that is described on the map.

79 Mr. WEDGWOOD: He has answered the question, Mr. Brown, that that was the land in dispute—the Murphy land—about 200 feet in width.

Mr. BROWN: Oh, I did not know that.

The COURT: What do you mean, the line as indicated by the red lines?

Mr. WEDGWOOD: Well, I will ask him that.

Q. I will ask you what is represented by the red lines or within the red lines upon that map?
A. It represents a strip of land 200 feet wide.
Q. And how long?
A. Thirty-seven hundred feet long, approximately.

Mr. BROWN:

Q. That is between these dark-red lines. It is here, is it?
A. Yes, sir.

Mr. WEDGWOOD:

Q. Take that deed, Mr. Yard, and see if there is any of the property on that map comprehended within the property covered by that deed.

Mr. BROWN: We will object to that, may it please the court. That leaves him to consider the deed. It is entirely improper. If he means to inquire where the particular quarter-sections are that are represented on the map, I will have no objection, but the other matter is another thing. If it is meant to say what land passed by that deed, that is a legal conclusion, and it is apparent that nothing passed.

Mr. WEDGWOOD: I just want to identify the premises.

Mr. BROWN: What premises?

Mr. WEDGWOOD: That the premises identified by Mr. Murphy are the premises described on that map.

Mr. BROWN: He can't do that. Mr. Murphy said the land was on the left-hand side of the river.

The COURT: Formulate your questions, Mr. Wedgwood, in
80 a manner that will not in any way permit or ask the witness to form any conclusions as to the title of the land or otherwise.

Mr. WEDGWOOD:

Q. Well, I will ask you this question, Mr. Yard: Do you know the piece of ground on this side of what is known as the Ferguson land?

A. Yes, sir.

Q. And adjacent and joining the Ferguson land?

A. Yes, sir.

Q. Down the stream?

A. Yes, sir.

Q. Now, I will ask you if that map represents the land adjacent and down the stream from what is known as the Ferguson land.

A. Yes, sir; and it so shows on the map.

Q. Now, what does that land—that land inside of the red line—represent?

A. It is intended to represent a right of way for a railroad across this land.

Q. Now, I will ask you the question, if a right of way across this land at or near the points designated by these red lines is necessary for the construction of a road up Provo canyon, as herein platted.

Mr. BROWN: I object to that, may it please the court, whether a right of way is necessary across this land. In the first place, they are suing for this particular right of way. A right of way might be necessary across some part of that land, and might not be necessary on this particular piece of land. It is entirely immaterial. They are not asking for any right of way on the north side of the river. If they have had they have abandoned it, and the right of way described in this complaint is on the south side of the river, and for that reason it is incompetent; and for the reasons, as I said

before, it must appear from all the surrounding circumstances and not from the mere statement of the witness.

Mr. WEDGWOOD: It says at or near. Under a certain act of Congress it provides that after certain things have been done a title from the United States passes to the railroad company. Now
81 we ask him the question, as an officer of this road, as an engineer of experience, whether in building that line of railway at or near that point designated in that map over this land, this land is necessary. It is a question eminently proper for him to answer.

The COURT: At or near. Let him answer the question.

Exception taken.

A. It is necessary to have a right of way across this land to build a railroad upon.

Mr. WEDGWOOD:

Q. Now, you may describe the canyon there, Mr. Yard, over that piece of ground or adjacent to that piece of ground.

A. The canyon is quite narrow and rough, and the most practicable route through it is the route shown on this map.

Mr. WEDGWOOD: Mr. Brown, we will ask to introduce this map in evidence.

Mr. BROWN: Let him identify it first.

Mr. WEDGWOOD: I thought I had examined him on that.

Q. Mr. Yard, is this the map that you testified was made under your supervision from the surveys?

A. Yes, sir.

Q. Is it correct, according to the surveys, and represents the line up Provo canyon?

A. It represents the line as it was then; yes, sir.

Q. Now, since that map was made—since the first survey was made—has there been any change? Was there any change after that?

A. Yes, sir; there has been a number of minor changes made in the location of the line.

Q. And any with reference to this property here?

A. Yes, sir.

Q. What was the nature of it?

A. It was afterward thought that a better—that is, a cheaper and straighter—line could be procured on the opposite side of the river from the one shown on this map.

82 Q. Now, where was the final location made?

A. On the south side of the river at that point.

Q. On the south side, you mean, or on the east side?

A. On the east side—the southeast side.

Q. Where does the big map show it? Does it show it on the east side?

A. No, sir; it shows it on the north side—north or west side.

Q. Does this go through the same land?

A. Yes, sir.

Q. Was that change made before June, 1896?

Mr. BROWN: Well, wait a minute; don't tell him when the change was made.

Mr. WEDGWOOD:

Q. Well, when was the change made, if you know?
A. The change was made some time in the summer; I don't know; I couldn't give the exact date; no, sir.

The COURT:

Q. Do you mean last summer?
A. Last summer; yes, sir—1896.

Mr. WEDGWOOD: If the court please, we offer the map showing the general location of the route up Provo canyon.
Mr. BROWN: The one that you showed him?
Mr. WEDGWOOD: Yes.
Mr. BROWN: There is no objection to its going in. The effect of it, of course, I shall have occasion to discuss afterwards.
The COURT: It may be admitted.
(Marked "Pl'ff's Ex. F, D. H. R.")

Cross-examination.

By Mr. BROWN:

Q. You spoke of the different lines of road of your company, and I ask you if you have any line of road conforming to this that you were inquired about on the direct—for instance, this line—from a point at or near Provo, in Utah county, to a point at or near
83 the mouth of the Duchesne fork of the Uintah river, in Wasatch county, passing into or through the counties of Utah, Wasatch, and Summit, a distance as near as may be of 100 miles. You have no line of road operated on that line, I suppose?
A. No, sir.
Q. How long have you been connected with the company?
A. Over thirteen years.
Q. Thirteen years?
A. Yes, sir.
Q. Let me see—that takes us back to what time; '84?
A. The fall of 1882.
Q. It was then the Denver and Rio Grande?
A. Yes, sir.
Q. And you never had, no other company has ever had, any line operated through there these thirteen years?
A. No, sir.
Q. And the other description—I don't know as I can read you the same, but I will read you two or three more. I want to ask you the same question about them: A branch from a point at or near the mouth of White river, in Uintah county, to a point on the eastern boundary line of Utah, where the same is crossed by the

valley of Green river, passing into and through Uintah county. Have you a line of road there?

A. No, sir.

Q. The way to that point, the mouth of White river, would not be through Provo canyon, would it?

A. I think it would.

Q. From here to the mouth of White river it would be the most direct route?

A. Yes, sir.

Q. Whereabouts is the mouth of White river?

A. The mouth of White river is approximately 75 miles up Green river from the crossing of the Rio Grande Western.

Q. Seventy-five miles from your present crossing?

A. Yes, sir.

Q. North?

A. Possibly north.

84 Q. Couldn't that location be reached by running in the same direction you now run a large part of the distance and branching off?

A. It could; yes, sir.

Q. And be a very practicable and feasible route to the mouth of the White river?

A. It would be possible to secure a practicable route—yes, sir.

Q. Well, let me read you the next one: A branch from a point at or near the Soldier's Pass, in Wasatch county, to a point on the Sevier Valley Railway line—that is too far away, that I have no occasion to read it.

A. No, sir.

Q. Third, a branch from a point at or near the mouth of White river, in Uintah county, to a point at or near Kimball station, in Summit county, passing into or through the counties of Summit, Wasatch, and Uintah?

A. I do not know where Kimball station is.

Q. Don't know where that is?

A. No, sir.

Q. Fourth, a branch at the mouth of White river, in Uintah county, to the mouth of Green river, in Piute county, passing through Piute and San Juan counties, all in the Territory of Utah. All that would be still further south?

A. That would be still further south—yes, sir.

Q. Of your present line. The first description that you gave was the one read to you from the complaint, where you said it was necessary: "From the city of Provo, in Utah county, to a point on the eastern boundary line of Utah, where the same is crossed by the valley of White river, in Uintah county, passing into and through the counties of Wasatch, Utah, and Uintah." Is that the one that you say was necessary to go up Provo canyon?

A. I said it was the most practicable way to go up Provo canyon.

Q. Yes; for that one?

A. Yes, sir.

Q. And how long have you known the company not to have one up there?

—. Thirteen years.

85 Q. Thirteen years?

A. Yes, sir.

Q. For the first—for more than the first ten years that you have been engaged as engineer for the company they had no line and made no attempt to put one up Provo canyon, did they?

A. I made an examination.

Q. What?

A. I made an examination.

Q. You made an examination?

A. Yes, sir.

Q. But no survey, no track laid?

A. No track laid; no, sir.

Q. No survey made?

A. I made a recognizance; that may be called a survey.

Q. A what?

A. A recognizance.

Q. Yes; just riding through it?

A. Yes, sir.

Q. No profile made in that ten years?

A. No, sir.

Q. In fact, it was about twelve years from the time you came into employment of the company before you started in that—any actual work?

A. It may have been started before I came here, so far as I know.

Q. So far as you know?

A. So far as I know.

Q. And so far as any grading being done there has never been any done yet?

A. There has been some done in Provo canyon.

Q. Well, up to this last year there never has been any done?

A. No, sir.

Q. Now, you say you commenced work on this survey in March, 1896; whereabouts did you begin?

A. At Provo City.

Q. Was that under your immediate direction?

A. No, sir.

Q. How long before you got out of Provo City?

A. I think, only a few days.

Q. Remember the exact date that you began this work in Provo City?

A. No, sir; I do not.

Q. You testified—did you have any data when you made

86 up this map, as to that exact date?

A. Yes, sir.

Q. Where did you get it?

A. From the field-notes of the survey.

Q. From the field-notes?

A. Yes, sir.

Q. Who made them and prepared them?
A. They were made by the locating engineer.
Q. You testified to them from that?
A. Yes, sir.
Q. This affidavit that is filed on this map, I will read it to you and ask you if it is correct.
A. Yes, sir.
Q. (Reading:) "E. J. Yard, being duly sworn, says he is the chief engineer of the Rio Grande Western Railway Company; that a survey of the line or route of said road from Provo City, Utah, to a point near the upper end of Provo canyon, about two miles southwest of the town of Charleston, a distance of twenty miles, was made under his direction as chief engineer of the company and under his authority, commencing on the 25th day of March, 1896, and ending on the 3rd day of June, 1896, and that such survey is actually represented on the accompanying map." That was true, was it?
A. The field-notes showed those dates; yes, sir.
Q. The field-notes showed these dates?
A. Yes, sir.
Q. And this map was made by you for the purpose of being filed in the General Land Office as evidence of your right of way?
A. Made under my direction; yes, sir.
Q. For that purpose?
A. For that purpose; yes, sir.
Q. And this is the map that the company has filed, isn't it?
A. They have filed maps since.
Q. Over this same tract, have they?
A. Yes, sir.
Q. Filed another one changing it?
A. At the request of the land office.
Q. This is the one that was filed on that date; do you know the date when that one was filed?
A. This one?
87 Q. Yes.
A. No; I do not.
Q. But it was some time—I see Mr. Palmer makes his certificate on the 9th day of June—it must have been some time before the 9th day of June.
A. Yes, sir.
Q. Here it is—"U. S. Land Office, June 18th, 1896, filed."
A. Yes, sir.
Q. Now, after that your line that you laid out and surveyed for this twenty miles was on the north side of the river?
A. Yes, sir.
Q. And when you made it you regarded it as necessary to take that line on the north side of the river?
A. I regarded it as necessary to take some line through there.
Q. You say it was not necessary to take that line on the north side?
A. No.
Q. It wasn't so necessary to take the line on the north side?

A. That appeared at that time to be the most practicable route; yes, sir.

Q. And if you had been sworn on it at that time you would have testified that it was necessary to take that line?

A. I presume I would; yes, sir.

Q. And you think now that any point would do, south or north, do you?

A. I think that either place——

Q. Either place?

A. Either place would do to make a line of road through; yes, sir.

Q. But the line that you claimed, up to the 18th day of June at least, was on the north side of the river?

A. Yes, sir.

Q. You don't know when that change was made?

A. No; I do not.

Q. Must have been after the 18th day of June?

A. Must have been after the 18th day of June; yes, sir.

Q. Do you know by whom it was made?

A. Yes, sir; it was made by Mr. Baxter.

88 Q. Mr. Baxter saw fit to make the change?

A. Yes, sir.

Q But you don't know when?

A. No, sir; I do not.

Q. There is between that line of road and the one that you have brought suit upon about how *many* distance in feet? Just look. You have seen both the maps, and I suppose you could tell by looking at the schedule.

A. The lateral direction?

Q. Yes, sir.

A. The old one, of course, is north of the new one at any particular point you are a mind to select.

Q. What line is this?

A. That is one of the interior subdivision lines.

Q. Well, what is that line there—a section line?

A. Here is the line between section 27.

Q. Well, on that section line, then, what would be the difference in feet from the old location to the new location?

A. It would be not to exceed two hundred feet.

Q. Across the river?

A. Across the river; yes, sir.

Q. Up to the 18th day of June, at least, the company, the Rio Grande Western Railway Company, had not selected its route south of the river as the line of its railroad?

A. No, sir; I think not.

Q. And of course had done no work upon it, even in the way of surveys?

A. I think not. I am not positive of the dates.

Q. Not to your knowledge, anyway?

A. Not to my knowledge; no, sir.

Q. You say that this map that you filed in the land office as the

map of your road, that you claim has been changed and another substituted. Has it?

A. Yes, sir.

Q. When did you put in the other?

A. I do not remember the exact date.

Q. Have you a copy of it here?

A. I think so; yes, sir.

89 Q. Could you tell me, by looking at it, the date that the change was put in the map south of th- river?

A. Yes, sir.

Q. I wish you would.

A. The 21st of December.

Q. The 21st of December?

A. Yes, sir.

Q. Then, that was the time that you filed formally your claim for this line of road that you now ask for south of the river?

A. This map was returned for revision at the suggestion of the Interior Office, and we included this change on the south side of the river.

Q. Then the first map was not accepted by the Interior Office?

Q. It was returned for some minor corrections.

Q. Oh, yes, but the Interior Office did not suggest which side of the river you should run on?

A. No, sir.

Q. The first map was returned, and you then changed it to give another, did you?

A. We included minor changes that had been made in the location of the line.

Q. What do you mean by minor locations? Moving it across the river? That is one of them, is it?

A. Yes, sir.

Q. That is what you call minor changes?

Q. Minor changes; yes, sir; doesn't effect the general route of the line.

Q. You made that change—of course, you must have made it before December 21st?

A. Yes, sir.

Q. Can you tell how long before December 21st?

A. No, I could not; probably two or three months.

Q. At all events, you went and filed another map on that date?

A. Yes, sir.

Q. Now, as to this necessity; I suppose that means no particular line, but simply some line up Provo canyon?

A. Yes, sir.

90 Q. That line could be run higher up the canyon, couldn't it?

A. At a considerably greater cost.

Q. Yes, but it could be done?

A. It is possible, but not practicable

Q. Well, practicable. You mean by that that it was entirely practicable if you have got money enough to do it?

A. Yes, sir.

Q. Cost more?
A. Cost more.
Q. That is what you mean by not practicable. It could be run at any place, I suppose. There is no difficulty in engineering nowadays to put any road where you want it?
A. No, sir; could put it on top of these mountains if you wanted to.
Q. If you have got money enough?
A. If you have got money enough; yes, sir.
Q. Did you yourself go up the river to look after this surveying?
A. Yes, sir.
Q. How often?
A. I went up occasionally; not often.
Q. Once a month?
A. Hardly that often, probably.
Q. Could you tell me, of your own knowledge, when the line of survey reached the bridge?
A. No, sir; I could not.
Q. Could not tell?
A. No, sir.

Redirect examination.

By Mr. HARKNESS:

Q. I understand you to say you cannot state when the line was changed to the south side of the river?
A. No, sir; I cannot.
Q. Will you look at that map and see its date, which is attached to the complaint, and I will ask you who made that.
A. This was made in my office.
Q. Will you look at the date on that and see if the change
91 was not made prior to September, 1896?

Mr. BROWN: I object to it. It doesn't appear that the change was made within his knowledge, or that that map was made in his knowledge. It was made in his office.

The COURT: Is it claimed that this is the map attached to the complaint?

Mr. BROWN: This is the map that is attached to the complaint. I suppose he didn't make it. In fact, the change was made by some other man, Mr. Baxter, I understand, didn't he?
A. Yes, sir.

Mr. BROWN: He knows no more about that map than any of the rest of us.

The COURT: I think that is correct.

Mr. HARKNESS:

Q. You say that was made in your office. Do you know by whom?
A. Yes, sir.
Q. Who?

A. Mr. Zulick.
Q. Was you there?
A. I don't know as I was in the office on that day.
Q. Well, do you know—that is a copy from the original, is it not?
A. Yes, sir.
Q. Do you know whether the original was made from notes in your office?
A. Yes, sir; I know it was made by Zulick.
Q. When that map was made—was that map made before or after the change to the south side of the river?

Mr. BROWN: I object to that, because he can't know that. He don't know when the change was and don't know when the map was made.

A. I know it was impossible to make the map until the change was made.

Mr. BROWN: Well, that, of course, is an argument. The gentleman is a very logical lawyer, but as a witness I don't think he knows anything about it.

Mr. HARKNESS:

92 Q. Did you ever see the map of which that is a copy in your office?
A. Of which this is a copy?
Q. Of which this is a copy; yes.
A. Yes, sir.
Q. When did you first see that map?
A. I couldn't give the date.
Q. Couldn't give the date?
A. No, sir.
Q. The map that you hold shows the track on the right of way on the south side of the river, does it not?
A. Yes, sir.

Recross-examination.

By Mr. BROWN:

Q. One question I wanted to ask you that my attention was called to after I got through cross-examining you. You say the surveys started here in Provo City?
A. Yes, sir.
Q. How long did you survey directly from Provo up the canyon? Through the valley to the canyon?
A. Yes, sir.
Q. Didn't you jump the valley and begin at the mouth of the canyon?
A. No, sir.
Q. Surveyed right straight up?
A. Yes, sir.

Q. Was you along to see the work going on from time to time?
A. No, sir.
Q. Was that your direction?
A. My directions; yes, sir.
Q. To survey from Provo City to the mouth of the canyon?
A. Yes, sir.
Q. Didn't you direct—just reflect a moment—didn't you direct that they go up to the mouth of the canyon and start from there, so as to get through quicker?
A. No, sir; I think not.
Q. Think not?
A. No, sir.
Q. That was under Mr. Baxter's immediate supervision?
A. Yes, sir.
Q. He would know more about how he surveyed it than you?
93 A. Yes, sir.

Redirect examination.

By Mr. HARKNESS:

Q. Mr. Yard, you say a road could be built on the side hill. I suppose a road could be built most anywhere?
A. Yes, sir; nearly.
Q. What would be the result of carrying it up on the hill there, as to expense, practicability, and operation?
A. It would cost considerably more and be—it would require a heavier grade, which would be decidedly objectionable in operating.
Q. Then, while it could be built there, you would not regard it as a feasible thing?
A. No, sir.

Recross-examination.

By Mr. BROWN:

Q. You say feasible now, or, rather, counsel puts that in your mouth. Do you mean anything more by that that *by* practicable?
A. No; I think I mean to convey the same idea.
Q. And both or each and all of them means simply that it would cost more to build it; that is all that is meant by feasible or practicable, or feasibility or unfeasibility, isn't it?
A. No; I think not.
Q. Nothing besides cost. What besides cost is there in it? Define your feasible.
A. Well, besides cost would be the difficulty of operating it on the side of the hill.
Q. Yes. Well, that is a matter of expense, ain't it?
A. Well, yes; I presume so.
Q. All simmered down, it would cost more to build and cost more to run?
A. Yes, sir; as you put it; yes.

Q. There is danger in operating any road on the south side of the river, isn't there?

A. On the south side?

94 Q. Yes.

A. There is on either side.

Q. On either side?

A. Yes, sir.

Q. More on the south side than on the north, isn't there?

A. At what point?

Q. On the north side, where it is exposed to the sun, it melts the snow easier?

A. Yes, sir.

Q. You have greater freedom from snow on the north side?

A. Yes, sir.

—. And on the south side, where you have got your line now, is on the side where the snows generally come and cover the road clear up?

A. Yes, sir; sometimes.

Q. And they generally do that?

A. They have the past winter; yes, sir.

Q. Now, do you call it feasible to run any line on the south side of the river?

A. So far as these snow-slides are concerned, it makes but little difference where it runs.

Q. That is stronger than money, isn't it?

A. Yes.

Q. That is another element of feasibility that cannot be overcome?

A. Yes, sir.

Q. Now, as this road has been this winter, you can't run a road there at all?

A. Oh, I think so; yes, sir.

Q. Through those snow-slides?

A. Might be delayed, but I think it could be cleared away.

Q. When was it your superior, Mr. Dodge, have you direction to run this line?

A. It was about a year ago.

Q. What did he say in the way of giving you direction?

A. I don't remember the exact words. I think the instructions were in the shape of a letter directing me to make a survey for the most practicable route from Provo through Provo canyon to the head of Daniel's creek, and from some point on this road to Park City.

95 Q. Have you got that letter?

A. I haven't it with me; no, sir.

Q. Well, have you it filed away?

A. I presume I have; yes, sir.

Q. In the archives of the office?

A. Yes, sir.

Q. Where would that be?

A. In Salt Lake City.

Q. At your headquarters?
A. Yes, sir.
Q. Is that all the direction he has given you about this matter?
A. Oh, no, frequently in conversation.
Q. Has he made any written directions to you on the subject of building a railroad?
A. I think it was referred to in correspondence; yes, sir.
Q. Well, has he given you—you say he has written directions along about building a railroad to Park City?
A. Building a railroad?
Q. Yes; making a grade—building it.
A. I think I have correspondence to show that; yes, sir.
Q. I would like to have you produce them, if you can, before the trial is over?
A. Yes, sir; I would be glad to do so.
Q. I would like to see that direction as to building the road, and also as to that first direction as to surveying the road.
A. Yes, sir.
Q. It is the custom, I suppose, or habit of your office to take written directions on such important subjects as that?
A. Usually, but not always; frequently by conversation.
Q. Does he have you go on and build a mile of railroad on a conversation?
A. A good many miles.
Q. A good many miles you build merely on his say-so?
A. Yes, sir.
Q. Did he tell you to build it on the south side of the river?
A. No, sir.
96 Q. And you did not tell the men to build it there; Baxter merely did that. Is that correct?
A. His instructions were to select the most practicable place.
Q. From you?
A. Yes, sir.
Q. And he selected that?
A. Yes, sir.
Q. How much grading has been done on that road; any?
A. Some; only a small amount, I think.
Q. Whereabouts has the grading been done?
A. It has been done in the vicinity of this land in question.
Q. Any other place?
A. No, sir.
Q. You just went up where this dispute occurred, and did grading there, and no other place on this twenty miles?
A. Yes, sir.
Q. Didn't grade here at Provo or grade at the other end?
A. No, sir.
Q. But did a little grading up at these premises?
A. Yes, sir.
Q. How long a space of grading on the south side of the river have you done?
A. I think it is only a few hundred feet.

Q. A few hundred feet of grading?
A. That is all.
Q. When was that done?
A. Done some time last summer and fall—early fall.

Redirect examination.

By Mr. HARKNESS:

Q. Mr. Yard, I understand you to say that there is not much difference on which side of the river you are as to snow-slides?
A. I haven't examined that enough to know whether there is a choice.

Q. In steepening your grad-, doesn't it also increase
97 danger in operating it?
A. Yes, sir; it is more difficult to operate.
Q. What is your present grade through the canyon?
A. It is two per cent. grade, 106 feet to the mile.
Q. Is that as steep as is practicable—that is, easily practicable in operation?
A. Oh, a steeper road could be operated.
Q. Can you with a single engine operate a steeper road?
A. It might necessitate the use of one or more engines on a train.
Q. Where was the grading done of which you have spoken, with reference to the land on the little map attached to the complaint?
A. Near the upper end of the claim shown on this map.
Q. On what you call the Murphy ground?
A. On what we call the Murphy ground; yes, sir.
Q. South of the river?
A. Some done on both sides of the river; some done on the north side before it was found that it was cheaper; that we could get a cheaper line on the south side.
Q. Then you changed to the south side?
A. Then we changed to the south side; yes, sir.
Q. Was you proceeding with the construction of the road?
A. Yes, sir.
Q. Why didn't you go on?
A. I had instructions to stop work for the present.
Q. Well, do you know whether you was interrupted in any way with the work?
A. Oh, at that point; yes, sir; we were interrupted.
Q. Well, was that the occasion of your stopping?
A. That was the occasion of our stopping at that point; yes, sir.

98 Recross-examination.

By Mr. BROWN:

Q. Why did you stop; why didn't you go on some other part of the line of the twenty miles?
A. My instructions only covered work to be done in that vicinity at that time.

Q. You never have been instructed to build a road anywhere else except through this reservoir; that is about it, isn't it?

A. I have not been instructed to build a road through that.

Q. Only to start a road and make a bluff game?

A. To start a grade; yes, sir.

Q. Isn't that it?

A. No.

Q. If you intended to build a road to Park City, why didn't you begin here in Provo or some other place? You haven't been interrupted here, have you?

A. No, sir.

Q. Why, then, did you begin on there?

A. I haven't received instructions to begin to build.

Q. Haven't received instructions not to build a road?

A. Haven't received any instructions to begin to build a road.

Q. Haven't received any instructions to begin to build a road; that is it, is it?

A. No, sir. I have received no instructions to begin entirely.

Q. You say you received instructions to stop work. When did you get those instructions?

A. After I notified the general manager that we had been enjoined from further work on this claim.

Q. When was that?

A. That was some time in the late summer or early fall. I don't remember the exact date.

Q. You received instructions at that time to stop work?

A. Yes, sir.

Q. On the whole line?

A. Yes, sir.

Q. Have you got those instructions in writing somewhere?

A. I think so; yes, sir.

99 Q. I would like to have you bring those also.

A. Yes, sir.

Q. I suppose they are at Salt Lake with the rest of the papers?

A. Yes, sir.

Q. Now, as a matter of fact, this grading south of the river was done after this suit was brought, wasn't it?

A. South of the river?

Q. Yes; the grading that you did, the railroad company did; I mean by you, south of the river, along the line here that has been indicated, was done after this suit was brought. This suit was sworn to on the 12th day of September, 1896, or issued on that day, the 10th day of September, 1896; this suit was brought on the 10th day of September, 1896?

A. I don't know the date.

Q. And this grading was done after that, wasn't it?

A. It might have been done after that; I don't know.

Q. It could not have been done until after you made the change in location?

A. No; you are right; yes, sir.

Q. And you hadn't made the change we know on the 18th day of June; it must have been done after the 18th day of June, anyway?
A. Yes, sir.
Q. And this suit was brought on the 10th of September. Didn't your men continue to work there after the bringing of the suit?
A. They may have done so.
Q. You never have received any interruption since you brought this suit, have you, and as a matter of fact you never have been enjoined, have you, come to think that over?
A. Oh, I have been ordered to stop work on certain points there.
Q. You attempted to blow out the rocks there where they come together closely, and you were interferred with as to that; that is all the interference you had?
A. We were interferred with in proceeding to build the
100 grade on the line we had constructed.
Q. Well, there was a particular point of rock that you proposed to blow out where the dam was to be constructed. Isn't that the only thing you were interrupted in, or have you been interrupted at any other point?
A. I think we were interrupted in making a channel change.
Q. I didn't quite catch that.
A. I think we were interrupted in making a channel change.

The COURT:

Q. A change, I believe you mean, in the channel of the river?
A. The channel of the river; yes, sir.

Mr. BROWN:

Q. Oh, a change of the river. You were asked on this last examination as to the grade up there. You say it is a two per cent. grade?
A. Two per cent.; yes, sir.
Q. And he also asked you if it was practicable or feasible to run a higher grade. The R. G. W. runs a much higher grade, doesn't it?
A. Yes, sir.
Q. Well, how much higher does the R. G. W. carry?
A. A four per cent.—3.8 per cent.
Q. That is entirely practicable, isn't it?
A. It is practicable, but lots of trouble with it.
Q. Lots of trouble, but it is a good road?
A. A fairly good road; yes, sir.
Q. You run your grade so that it is 3.8 per cent.?
A. Yes, sir.
Q. How many feet to the mile does two per cent. mean?
A. 105—106.
Q. 105 or '6?
A. Yes.
Q. What is the difference in elevation between Charleston and Provo—these twenty miles?
A. I could give it to you exactly by referring to the profile.
Q. Do so.

101 The COURT: Do you mean Provo City or the mouth of the canyon?

Mr. BROWN: Provo City; and I will ask him as to the mouth of the canyon afterwards—give them both at the same time.

A. Charleston is eleven hundred feet higher than Provo.
Q. And the distance?
A. The distance is nearly twenty-three miles.
Q. How much is that per mile?
The COURT: I didn't hear the distance.
A. Twenty-three—about fifty feet to the mile.

Mr. BROWN:

Q. That is an average of one per cent. grade?
A. Yes, sir.
Q. Now, answer me all those questions from the mouth of the canyon to Charleston.
A. The mouth of the canyon to Charleston?
Q. Yes.
A. Charleston would be 565 feet higher than the mouth of the canyon.
Q. What is that?
A. I believe we are wrong. That is 900 feet instead of 1,100 that Charleston is higher.
Q. Than Provo?
A. Than Provo.
Q. Now, give it to me from the mouth of the canyon.
A. From the mouth of the canyon it is 565.
Q. And the distance?
A. It would be 15 miles.
Q. How much is that per mile?
A. About forty feet.
Q. About forty feet per mile?
A. Yes, sir.
Q. About one per cent. grade would take it up the canyon. Now, if you can give it to me from the mouth of the canyon up to those premises in dispute, can you?
A. Yes, sir.
Q. Up to the bridge, say, or just above the bridge?
A. The rise would be 330 feet in four miles.
Q. In 4 miles?
A. Yes, sir.
—. Now, if we could add 100 feet higher, make a rise of
102 400 feet, it would be just a one per cent. grade?
A. A two per cent. grade.
Q. Yes; that is right; that would make a two per cent. grade; then if we start from the mouth of the canyon on a two per cent. grade and keep at a two per cent. grade it will bring us up on the side hill 100 feet.
A. A two per cent. grade doesn't rise a hundred feet; you take

into consideration the curves. The curves are less than two per cent., but we allow for the resistance pulling around them.

Q. In other words, you would have to have them at less than *ywp* per cent.?

A. The average resistance on a two per cent. grade, two per cent. maximum grade, is considerably less than 106 feet to the mile.

Q. How much?

A. It varies according to the curviture.

Q. But an average two per cent. grade from the mouth of the canyon to the premises in dispute would bring, if it was an average two per cent. grade, would bring your road over a hundred feet from the bottom of the mountain, the side hill?

A. I think not.

Q. Wouldn't it—400 feet, 300 feet, a hundred feet to the mile would bring it up there, wouldn't it?

A. No; it is four miles.

Q. Four miles, 300 feet difference in elevation?

A. Select any one mile through there, any average mile——

Q. I wanted to get the road up above the dam.

A. I mean any mile between the mouth of the canyon and the Hanging rock.

Q. I don't know as I understand that, but you may select any mile, if you want us to understand that; select the first, beginning at the mouth of the canyon and go on up.

A. The first mile from the mouth of the canyon only rises 78 feet.

103 Q. To the mile?

A. To the mile; yes, sir.

Q. Well, if you were rising at the rate of two per cent. you would get up a good ways from the bottom of the canyon?

A. Yes, sir.

Q. On a hundred feet that would make us 30 feet up; go on with the second mile.

A. The second mile you would rise eighty feet.

Q. Making an average of 50 feet higher; if it was fifty feet at the bottom of the canyon, give us the third mile.

A. The third mile you have 95.

Q. That would only bring us up five feet more, 55; give us the fourth mile.

A. The fourth mile would be about 75.

Q. 30 more; that makes 85 feet, exactly the height of the dam. Now, isn't it more than four miles up to these premises, this Murphy——

A. From the mouth of the canyon?

Q. Yes.

A. I think it is about that; near enough.

Q. Well, near enough, but I was thinking it was another mile.

A. I think not, unless I am mistaken in selecting the mouth of the caynon in the profile.

Q. If you were to run—you were asked on the last examination by Judge Harkness if the snow-slides were not as bad on the north

side of the river as on the south; you said they were. Now, if you come partly up on the hill, on the north side, away from the bottom, where the snow-slides from the south side can't catch you, there is no danger of snow-slides, is there?

A. I presume there would not be, from snow-slides coming from the south side.

Q. By getting high enough up the mountain to get out of the way of snow-slides coming from the south side, you would be out of the way of snow-slides?

A. Yes, sir.

Q. And if you were going to build a road up the canyon,
104 isn't that what you would do?

A. No, sir.

Redirect examination.

By Mr. HARKNESS:

Q. Did you intend to say that by building a road upon the north side, some ways above the river, that you would escape all snow-slides coming from the north side?

A. Snow-slides coming from the south side.

Q. From the north side?

The COURT: That is what I understood the witness to say—from the south side.

Mr. HARKNESS:

Q. Are there none on the north side?

A. I think there are farther up the canyon; so I have been told. I don't know personally.

Q. You spoke about the Rio Grande operating a piece of road that has 3.8 per cent. grade?

A. Yes, sir.

Q. Doesn't it require doubling the engines with their freight trains?

A. Oh, yes; more than double the power.

Q. For moving the cars each way?

A. Each way on the top of the hill; yes, sir.

Q. Safety switch?

A. And safety switch; yes, sir.

Q. And a great wear between the breaks and machinery?

A. Yes, sir.

Q. No such grade as that is adopted where it is possible to avoid it, is it?

A. No, sir.

Q. You spoke about not grading at other points of the line, or you was asked why you didn't grade at other points of the line. Your grade is a graduated one, is it not, up the canyon?

A. Yes, sir.

Q. If you had to go ninety feet higher at one point, it
105 would be impossible to grade at other points until that was decided, wouldn't it?

A. Entirely so; yes, sir.

Q. Is it possible, in starting from Provo and going to Charleston, to graduate your road at one elevation?

A. At one rate of grade?

Q. At one rate; yes.

A. If it was possible we would surely do so.

Q. Well, it is not possible, is it?

A. No, sir.

Q. You have to graduate each mile as you can get it?

A. We reduce the rate of grade as low as is practicable; yes, sir.

Q. What would be the result of going up 85 feet at the point Senator Brown refers to, where he has some imaginary dam—I don't know where it is—on the construction of the road and the expense and difficulty of operation?

A. It is so impracticable that I have not figured on it as a possibility.

F. E. BAXTER sworn for the plaintiff.

Examined by Mr. WEDGWOOD:

Q. Mr. Baxter, what is your business?

A. Civil engineering.

Q. How long have you been engaged in that business?

A. Well, almost continuously since 1875, with the exception of the time I spent at college; about 22 years.

Q. 22 years; how long have you been employed by the Rio Grande Western?

A. Between three and four years, altogether.

Q. Were you in their employ in March, 1896?

A. Yes, sir.

Q. In what capacity?

A. As locating engineer.

Q. At that time, did you perform any work for them as locating engineer?

A. Yes, sir; I did.

Q. What was it?

106 A. Well I started a survey for a line from Provo to Park City the latter part of March.

Q. Do you know when you commenced?

A. The 24th day of March.

Q. Well, now tell what you did.

A. Why, we marked a line on the ground, the center line, by stakes a hundred feet apart, sometimes fifty feet apart, and ran—took the alignment of it, of course, and ran levels of it, of course, in order to take a profile and secure sufficient data for a map, and section-lined, etc., on the line as we passed over it.

Q. Make field-notes?

A. Yes, sir.

Q. What did these field-notes comprehend?

A. Well, they showed the location of the center line in regard to land lines, section lines, etc.; showed the natural features of the

ground on their said proposed line for a certain distance—two hundred feet usually, sometimes farther.

Q. Well, did it comprehend the survey work up to the time of the construction?

A. Sir? I didn't understand the question.

Question read by reporter.

Q. Ready for construction?

Mr. BROWN: Well, I think that that is too leading.

A. I made all the surveys necessary.

Mr. BROWN: Wait a moment. I have object- to the questions.

The COURT: I think in that form it is objectionable.

Mr. WEDGWOOD:

Q. Yes; what was the nature of the work that you did there?

A. Well, it was marking out the line of road on the ground and getting sufficient data on which to base an estimate.

Q. What for?

A. Of cost and for construction.

Q. Now, where did that line run? Did you locate a line?

A. Yes, sir.

Q. How?

A. I located a line.

107 Q. Now, where did you locate it?

A. Why, it started out from our depot at Provo here and paralleled the main line for about a mile, and then went in almost a direct line to the mouth of the canyon, thence up the canyon to the head of the canyon, via Charleston, to Heber city and Park City.

Q. Now, up the canyon; what part of the canyon was the location made?

A. Well, the location was made through the bottom of the canyon almost entirely.

Q. Did you ever see a board nailed on a tree about any Murphy claim?

A. Yes, sir.

Q. Do you know where the Murphy claim is?

A. Yes, sir.

Q. Did you locate across that?

A. I did.

Q. About how long a piece of ground across that?

A. Why, I don't know the exact western limit of the claim, but I think it is about three-quarters of a mile long altogether; it was about a half a mile from this notice to the——

Mr. BROWN (interrupting). Object to this notice that he says was a half a mile long. He never indicated what lines he has.

The COURT: Ascertain if the witness knows the limits of that.

Mr. WEDGWOOD:

Q. Do you know where the Ferguson land is?
A. Yes, sir.
Q. Where the bridge is?
A. Yes, sir.
Q. Did you run the location between those two points?
A. I did.
Q. Whereabouts was that location?
A. It was—that notice was about——
Q. No; the location that you made of the railway?
A. Well, the first line we run was on the north side of the river or west side of the river.
Q. Now, when did you run that line?
108 A. Why, we run the first about the middle of April.

Mr. BROWN:

Q. About what?
A. The middle of April.

Mr. WEDGWOOD:

Q. Do you know the exact date?
A. No, sir.
Q. Now, whereabouts in the canyon was that run?
A. It was run in the bottom of the canyon on the west side of the river.
Q. Now, did you afterwards change that?
A. I did; yes, sir.

Q. Mr. BROWN: He is calling it the west side.

The COURT: Mr. Witness, do you mean the northwest side?
A. Yes, sir.

Mr. WEDGWOOD:

Q. And what did that change consist of?
A. Why, I changed the line from about a mile below Thayer's to a point five miles up the canyon on to the south and east side of the river.
Q. When was that done?
A. During the last days of June it was started, and during July. It was not finished until fall—that is, all the details of it.
Q. Well, do you know where the point is called Hanging rock?
A. Yes, sir.
Q. When was it made in that neighborhood?
A. About the first of July.
Q. Where was that with relation to this piece of board?
A. The Hanging rock was about six hundred feet westerly—southwesterly from the sign.
Q. Do you remember what was on that board?
A. "Claim of A. L. Murphy."
Q. Why did you make the change?
A. To the east side of the river?

Q. Yes; or to the south side of the river.

A. Well, there were different reasons. One of the reasons
109 was that in conversation with old settlers there, Mr. Thayer and Mr. Ferguson——

Mr. BROWN: Well, I object to what they told him.

Mr. WEDGWOOD:

Q. Just tell why you done it.

A. I learned that the north side was more subject to snow-slides than the south side.

Mr. BROWN: I object to what he learned about snow-slides.

Mr. WEDGWOOD:

Q. Don't tell how you acquired your information, but why did you do it.

A. I found that the south side was free of snow-slides, and also the road on the north side would require a change in the county wagon road, which was considerable work, and after a trial of the south side I also found that I got a better line aside from these considerations.

Q. Did that change effect the general route above or below in any way?

A. No, sir.

Q. And what would be the difference—the change in location, so far as distance—one way or the other?

A. The horizontal distance between the lines?

Q. Yes.

A. Well, it was, perhaps, 150 feet to 300 and 400 feet in the widest.

Q. Vary in different places?

A. Yes, sir.

Q. Now, in order to build a railroad up Provo canyon, Mr. Baxter, is it necessary that the road-bed should be located at or near the points picked out by you?

A. Yes, sir.

Q. I will ask you to look at that map. Did you ever see it before or a duplicate of it?

A. Yes, sir; I have seen it before.

Q. I will ask you whether or not that represents the line as located by you on about the first of July correctly.

A. Yes, sir.

Q. That is between Ferguson's place and about the bridge?

A. Yes, sir; it is.

110 Q. The map referred to is the map attached to the complaint, marked "Exhibit A," as a part of the complaint. Do you know what was done in the way of construction, Mr. Baxter?

A. Yes, sir.

Q. What was done in the way of actual construction?

A. About 400 feet of grade was built just above the Hanging rock and about as much more was built just east of Ferguson's

claim; perhaps a mile northeasterly up the river from the first piece.

Q. Anything in the nature of channel changes?

A. Yes, sir; one channel change. We built one channel change.

Mr. BROWN:

Q. What is that?

A. We built one channel change.

Mr. WEDGWOOD:

Q. Now, when was that work done, Mr. Baxter?

A. It was done during July and August and September. I think it started in July.

Q. Started in July?

A. Or the last days of June.

Q. Now, what was the nature of that work? Describe it as near as you can. Tell what it was. If it was grade, describe the grade.

A. Well, the lower piece of work was a piece of side-hill work and a side-hill excavation, ranging from a very slight cut up to a depth of probably to 15 or 20 feet, and the upper piece of——

Q. (Interrupting.) Well, now, how high a grade was thrown up there—how long and how wide?

A. Well, the grade was about eight or ten feet high—that is, from the water surface—and about 400 feet long.

Q. And about how wide?

A. It was 14 feet of embankment and about 18 feet of excavation.

Q. Well, is that the regular road-bed?

A. That is the regular road-bed; yes, sir.

Q. That other place, now, what was done up there?

A. Well, a small piece was constructed in conformity to our standard road-bed section.

Q. About the same way?

A. Yes, sir.

111 Q. I will ask you, Mr. Baxter, if you can locate the Hanging rock upon this map approximately.

A. Shall I mark it with pencil on the map?

Q. Yes, sir; you can do it.

A. Yes, sir; I can locate it; yes, sir.

Q. Now, just print on there, so that we can——

A. (Interrupting.) Yes, sir.

Q. Now, where was the first work with reference to that?

A. The first work was commenced about 300 feet northeasterly and extended 400 feet from there.

Q. 400 feet northeasterly?

A. 400 feet northeasterly; yes, sir.

Q. And where was the second piece of work?

A. The second piece commenced about a mile up the river from that.

Q. That is not shown on this map?

A. That is not shown on this map.

Q. That is on the Ferguson land?
A. That is on the Ferguson land.
Q. On the Ferguson land?
A. Yes.
Q. And did you have charge of that work, or who did?
A. Charge of which?
Q. Of the work.
A. I had general charge; yes, sir.
Q. You had general charge?
A. Yes, sir.
Q. Now, where was this channel-changing made? Is it shown on here?
A. No; the channel-changeing as it was completed is not shown here.
Q. Well, is there any work done on channel-changing that would come on that map?
A. Yes, sir.
Q. Where was that? Just give it, as near as you can.
A. Just northeasterly from the Hanging rock; 200 feet, perhaps.
Q. Now, was it on the plat of grown- shown between the red lines as the right of way there?
A. Yes, sir.
112 Q. Now, was this grading—or where was this grading done that you have spoken of?
A. With reference to the channel change?
Q. No; to the land shown on there as the right of way.
A. It was done on the upper end of this piece.
Q. Well, within those lines?
A. Yes, sir; within those lines.
Q. Within the 200 feet located by you?
A. Yes, sir.
Q. What made you stop work?
A. Why, I wasn't there when they stopped work.
Q. You wasn't there when they stopped work?
A. No, sir.
Q. Have no personal knowledge as to what took place?
A. No, sir.

Cross-examination.

By Mr. BAILEY:

Q. When did you say you began to make this second survey, Mr. Baxter?
A. That is, the change of the location on the east side of the river?
Q. Yes.
A. About the last of June.
Q. And when did you finish it?
A. Why, the line was *wasn't*—we were working at it as late as October, the upper end of it, trimming it up and improving it where

we could; but the first line had been run through in, I think, July or the first of August, and there was some improvements later on.

Q. I suppose you finished it before you decided to adopt the other?

A. No, sir; I ran a line through showing that it was a better route than the other one, and as soon as that was determined we commenced construction.

Q. Well, when did you begin running that line to determine it?

A. To determine the *d*easibility of the east side?

Q. Yes.

A. I commenced that in the latter part of June or first of July.

113 Q. And when did you finish it?

A. I don't know the exact date we finished it.

Q. And when you finished that you decided to adopt that rather than the line on the north side?

A. Yes, sir.

Q. And you don't know just when that was?

A. No, sir.

Q. How long would it take you to make that survey?

A. Well, that is pretty hard to tell; might take a week or two weeks; it depends largely on the character of the ground; I don't know how long it took.

Q. Wouldn't you have to go over the whole line?

A. Not the entire line; there was the last mile that was evidently so much better than the west side of the river that I could decide on that without an actual survey, but the doubtful part was from below Thayer's up for about two miles, up until perhaps a mile above the South fork.

Q. You thought that it was evident that that was the better side. It is a pretty rough canyon, isn't it?

A. Yes, sir.

Q. Difficult to get through?

A. Yes, sir.

Q. To make a survey?

A. Yes, sir.

Q. Don't know whether it will take a week or two weeks to make this survey to determine the feasibility?

A. I think it would take a week or two to determine the feasibility.

Q. Think you could determine in a week or two whether it is more feasible to build a road on the south side than on the north side?

A. I think I could, yes; at that point.

Q. Well, why didn't you then determine that before you made this survey and made the map, as you say?

A. Why, a person can't determine those things until he makes a survey on one side or the other, as a rule. As a rule we make surveys on both sides of the river.

114 Q. It was probably in the latter part of June, then, that you decided to adopt the line on the south side of the river?

A. Well, probably the first of July.

Q. Probably the first of July?

A. We decided to try it the latter part of June, and commenced surveying to determine the feasibility.

Q. Did you adopt that of your own accord or were you instructed to change it by some superior of your company?

A. I think the chief engineer suggested the desirability of trying that line. He didn't instruct me to change it, but I think he suggested that I try it.

Q. At this point which you call Murphy's claim, extending from the bridge to the Hanging rock, on which side of the river is the location of the road, the present location?

A. The present location is on the east side of the river, the east or south side of the river?

Q. The south side. At what time did you make this survey through this portion of Murphy's claim on the south side of the river?

A. On the south side, in June or July.

Q. Did you make it in June?

A. I think I commenced it in June—the last of June.

Q. The last of June?

A. Yes, sir.

Q. You did not commence it as early as the 26th of June?

A. Well, I am not able to say whether I commenced it before or after the 26th of June.

Q. You commenced it after the 26th of June?

A. I am not able to say as to that, as to the exact date.

Q. You did not decide to adopt it until after that time?

A. I think not.

Q. You have identified this map marked "Exhibit A;" do you know who made this map?

A. I do not know of my own personal knowledge. I did
115 not see it made.

Q. You testified, Mr. Baxter, that you did some grading above this Hanging rock?

A. Yes, sir.

Q. What was the height of the grading?

A. Well, the height of the road-bed, do you mean, or cut?

Q. The height of the road-bed or depth of the cut.

A. Well, the deepest cut, I think, was twenty feet; perhaps a little more.

Q. What was the average depth?

A. Well, it run from two or three feet up to—20 feet was the highest point.

Q. Was it soft or hard rock?

A. It was very hard. The deepest cut was through solid rock.

Q. Are you speaking now of the north or south side of the river?

A. The south side.

Q. How many feet of grading did you do on the south side?

A. There was about 400 linear feet of grading was built.

Q. What was the value of that work?

A. I don't remember what the estimate was. I should judge, though, it was possible fifteen hundred dollars' worth of work; maybe more.

Q. Was it done by contract or by day's labor?

A. Yes; by contract.

Q. How?

A. It was done by contract.

Q. Who had the contract?

A. Deal Brothers and Mendenhall, of Springville.

Q. You don't know what the contract price was?

A. No, sir.

Q. You spoke of doing 400 feet of grading; was this 400 on the south side?

A. Yes, sir.

Q. Well, how much did you do on the north side?

A. Well, I built—partially built—two or three hundred feet on the north side.

116 Mr. BROWN:

Q. How much?

A. Two or three hundred feet.

Mr. BAILEY:

Q. When was that done?

A. I think that was done the latter part of June.

Q. Who did that work?

A. I think the same contractors.

Q. You do not know what the contract price of that was?

A. No, sir.

Q. That was through hard or soft soil?

A. That was through soft soil.

Q. Was it cut or——

A. It was embankment.

Q. Embankment; was it a high or low one?

A. Oh, I think it was about five or six feet high.

Q. Would it average as much as that?

A. No; it would not average six feet, perhaps. The highest might have been five or six feet high—the highest portion of it.

Q. You testified that, in your opinion, it was necessary to build the road at the points which you picked out; which points did you refer to—the points that you were grading at on the north side or the points on the south side?

A. No; I referred to the general location of the line.

Q. Then you did not refer to any particular side of the river?

A. No; I selected what I believed to be the best side—the better side.

Q. You thought it was necessary to build a road at the points you picked out. You picked out two points, I understand, or two lines, one on the north side and one on the south side. Do you mean to say it was necessary to build on both, or do you mean to say it was necessary to build on the south or on the north side?

A. Well, I don't know as I comprehend the question. Well, I believe either line to be a practicable line of those two lines.

Q. Well, why did you adopt the one on the south side?

A. It proved, after we made the survey, that it was the better line.

117 Q. Was it a better line?

A. Well, it was somewhat shorter in distance and it avoids the necessity for building a wagon bridge across Provo river, and also for changing the wagon road a distance of three or four miles.

Q. Could you avoid the necessity of changing the wagon road by building above the wagon road?

A. If you are high enough above it you could, possibly. If it was, you would have to rebuild parts of it.

Q. How is the wagon road situated with reference to the river bottom?

A. Well, it is quite close to the river bottom most of the way.

Q. And if you build a short distance above that you would avoid the wagon road, would you not?

A. No, sir.

Q. If you build some distance above the wagon road vertically along the side hill, would you interfere with the wagon road?

A. Yes, sir.

Q. Would you interfere materially with it?

A. Yes, sir.

Q. Will you please explain how you would interfere materially with it when you build above it?

A. Because the alignment of the railroad would not be the same or would not be parallel to the alignment of the wagon road, and you would necessar-y have to cr-ss it in places, or if you wouldn't cross it the fills would cross it and it would interfere with it in that way; if there is any fill built in the side of the canyon you would necessarily run to the bottom of the mountain—that is, in most places—and in that way would destroy the wagon road.

Q. You are prepared to testify to that, are you, that any fill along that canyon would interfere with the wagon road?

A. Not at all points; I did not say that.

Q. There are points where a fill would not interfere with

118 the wagon road?

A. Well, wherever the wagon road is away from the base of the hill it wouldn't interfere; where the wagon road lies close to the base of the hill or side of the canyon it would interfere.

Q. Would a line built at an elevation of 85 feet above the wagon road interfere with the wagon road?

A. It would in places.

Q. What would be the result of that interference. You would have to provide against it, would you not?

A. If you had a line up there, yes; you would have to do something or change the wagon road.

Q. Built at an elevation of 85 feet, the interference would be very slight, would it not?

A. Well, I don't know; I am not prepared to say whether the interference would be very slight or not.

Q. You testified, Mr. Baxter, that you began to make the survey at the depot in Provo, I believe?

A. Yes, sir.

Q. Did you set stakes along the valley from Provo to the mouth of the canyon?

A. I did.

Q. At what time?

A. I started right here and ran a continuous line up; extended the line up from Provo.

Q. When did you do that, when you began your first survey?

A. Yes, sir.

Q. Isn't it a fact, Mr. Baxter, that you began to run that line at Geneva?

A. No, sir.

Q. Did you run any line at Geneva?

A. No, sir.

Q. Do you know whether the surveyors for the railroad company ever run a line from Geneva?

A. No, sir; they did not; not last year.

Mr. BROWN:

Q. What is that?

A. They did not run any last year.

Mr. BAILEY:

119 Q. You testified, Mr. Baxter, that when you began to make this survey in March—March 24th—that your purpose was to obtain data for a map.

A. That was one of the objects in making the survey.

Q. And wasn't that the only object?

A. No, sir.

Q. You finished that survey at what time?

A. Do you mean the entire survey to Park City?

Q. The entire survey to Park City.

A. Well, we worked at it until some time in November, making changes in different places.

Q. When did you finish it as far as Charleston?

A. Probably some time in May. I am not sure of the exact date; may have been in June.

Q. You did work very rapidly then from Provo to Charleston?

A. Well, we did work very rapidly from Deer creek up. It was rather slow work going up through the canyon. From Deer creek up it is an open country and we made good progress there.

Q. Did you finish that survey as far as Charleston by the middle of May in such a manner that you could let contracts for building the road on the survey?

A. Well, the line could have been built on it; yes, sir; on the survey.

S. J. NORRIS sworn for the plaintiff.

Examined by Mr. THURMAN:

Q. Mr. Norris, what is your business or profession?
A. Civil engineer.
Q. In whose employment were you in 1896?
A. The Rio Grande Western Railway Company.
Q. Were you working for them during the whole of that year?
A. Yes, sir.
Q. Did you have anything to do with surveying a line
120 from Provo City northerly—northeasterly?
A. Why, I did from the mouth of Provo canyon; yes, sir; from Provo easterly.
Q. From Provo? When did you commence work on that line?
A. I commenced in July.
Q. Who was in charge of the work directly?
A. Mr. Baxter was in charge of the location.
Q. Did you? How long did you work on that line in that business?
A. About four months.
Q. Did you assist in making a survey in the canyon?
A. Yes, sir.
Q. Provo canyon?
A. Yes, sir.
Q. Did you have anything to do with any grading?
A. I had charge of the grading.
Q. You didn't have charge of the locating of the line, as I understand?
A. No, sir.
Q. Where did you do any grading?
A. We done some grading just above the Hanging rock, and we done some above the South fork.
Q. Do you know what land it was on, any particular claim, or any name that it was known by?
A. It was on the—the lower work was on the Murphy claim.
Q. The Murphy claim?
A. Yes, sir.
Q. How long did you work there?
A. About two months.
Q. What months?
A. July and August.
Q. How much grading in length did you do there?
A. On the Murphy claim?
Q. Yes.
A. About 400 feet, I should judge.
Q. What time did you start work there?
A. About the end of August, I believe.
Q. What was the occasion or circumstance of your quitting work?
A. Well, we finished the work on the Murphy claim as far as we

could without coming in conflict with the power company
121 people. When we attempted to go any farther, why, they stopped us.

Q. When did they stop you?

A. They stopped me August the 3rd in one place and about September the 8th in another place.

Q. August the 3rd—what were you doing when you were stopped?

A. I started to grade a change in the river—a channel change.

Q. See if you can locate and identify on this map the place where you were working on the 3rd, when you say you were stopped.

Mr. HARKNESS: Bet-er take this one. This has the Hanging rock on it.

The COURT: Are they duplicates?

Mr. THURMAN: I don't know; probably they are.

A. There is the place there.

Q. Can you name that by giving it some name so as the reporter can get it?

A. It is just above the Hanging rock.

Q. How far above would you say?

A. Well, one end of the change came about opposite the rock—that is, the lower end—and the upper end ran up about 250 feet east of the rock up the river.

Q. Who was it interrupted you, if you know?

A. Mr. Cramer.

Q. Do you know what Mr. Cramer—who Mr. Cramer was?

A. I believe he was their chief engineer.

Q. Well, just tell what took place—what was said when it was done at the time of the interruption.

A. Well, we had started work and had been working about an hour, and Mr. Cramer rode up on his horse and jumped off and ran up in front of the teams and stopped them; waived his arms in front of them, and frightened them so as they wouldn't go.

Mr. BROWN:

Q. Frightened them so as what?

A. So that they wouldn't go, could not be driven, and said that we could not work there; that we were on the power company's land, and did not have any right there.

122 Q. What was his attitude?

A. A striking one, I guess.

Mr. BROWN: What was the answer?

The COURT: He says a striking attitude.

Mr. THURMAN:

Q. Did he have anything in his hand?

A. He had a whip in his hand.

Q. Is that all he said?

A. We had quite a talk there, but I don't remember everything that was said. Whenever we attempted to go ahead with the work he would jump up in front of the teams and would stop them, and

said if we attempted to do any work there, to go ahead with the work, that there would be trouble and somebody might be hurt.

Q. Well, did you go ahead or attempt to go ahead?

A. No; I did not have any instructions to go ahead in a case of that kind, so I thought I better stop until I had some instructions. I didn't want to cause a riot or anything there.

Q. Did you see anybody else there that day of the power company people?

A. Well, they had a part of their force up there near the dam.

Q. Anybody else that you had any talk with that gave you any good advice about quitting?

A. Not on that occasion.

Q. Well, now, you stated there was another time you was interrupted; also in September, I believe. Just relate the particulars of that interruption.

A. I started a gang of men to work on a cut joining the Hanging rock, just leading down the river, and we had been working about an hour as usual, when Mr. Cramer came up and ordered us to stop. I refused to stop.

Q. Who is that—Mr. Cramer?

A. Yes, sir; we had quite a talk there over it.

Q. State what was said there, as near as you can.

A. He told me that I would have to quit; that if I did
123 not quit that he would find a way to stop us, and somebody would get hurt. I told him I would not stop until he stopped me in a legal manner. He wanted to know if he should get a shotgun and stop me, if I considered that a right way. I told him no; that I preferred to have him serve papers on me.

Q. Well, did you see anybody else that same day?

A. Well, Mr. Cramer left us and came back about four or five o'clock in the afternoon.

Q. How long was he gone?

A. Probably from about ten until four in the afternoon. He came back with Judge King. Mr. King told me that he had come up prepared to stop us; said he did not want us to work any more on that property, as near as I can remember his words, and stated—he advised me to stop. He said he had come prepared to stop me.

Q. Is that all he said, now?

A. Well, that is all that I remember.

Q. What did you do?

A. Well, to avoid a conflict, I stopped.

Q. Well, did Judge King signify in what manner he was prepared?

A. No; he did not say.

Q. But in any event you stopped work at that time?

A. Yes, sir.

Q. Give us that date again.

A. I think it was the 8th of September, the 8th or 9th.

Q. Did you resume work any more after that?

A. Not at that point; we worked further up the canyon.

Q. Where did you work after that?

A. We worked between the North and South fork of Provo river.

Q. How many miles above the point where you was interrupted?

A. I should judge it is about a mile and a half. I don't remember the distance.

The COURT: A mile and a half from where, the South fork?

124 Mr. THURMAN:

Q. I will ask you if you reported anything about this interruption; need not state what you reported, but you may state whether or not you reported the fact.

A. Yes, sir; I reported to the chief engineer.

Q. Mr. Yard?

A. Yes, sir.

Q. Do you know whether or not any work was done at that point after that at all?

A. At the Hanging rock?

Q. Yes.

A. No, sir.

Q. You say no, sir. Do you mean you don't know or that there wasn't any work done?

A. What I mean is, there wasn't any work done at that point.

Q. When did you last see that work, that very particular spot where you was interrupted?

A. Some time in October I saw it.

Q. (Interrupting.) Any change in it from the way you had left it?

A. No, sir; well, yes, there was a change; somebody had, right after we had left there—somebody had scratched the earth over to hide the cut.

Q. Had scratched what over?

A. The earth over it, up above the hill, so as to hide the excavation.

Q. Well, how much of an excavation had you made?

A. Oh, it wasn't very large; about what five men could do in six or seven hours.

Q. Rock-work or earth?

A. Earth-work.

Q. That work was in addition to the 400 feet, was it, that you said had been done there, in length?

A. Yes, sir.

Q. You mean that was the work that was done at this particular point where you were going to make a cut?

A. Yes, sir.

Q. At the Hanging rock?

A. Yes, sir.

Q. Or at the rock, what work did you do above that point? Give us the extent of that.

125 A. We built a channel change about between three and four hundred feet long between the North and South fork on

the upper grade that we were doing, and built a wagon road four or 500 feet long, and we were working on about a half a mile of work, and finished about six or 700 feet of it when we were stopped—that is, stopped by order of the chief engineer.

Q. What was that wagon road, one you had built for your own use, or——

A. It was necessary when we made the channel change; it was necessary to destroy the old road.

Q. Well, this was a public road you was making?

A. Yes, sir.

Q. To put *in statu quo*. How many men were working with you?

A. In my party, the grading outfit?

Q. The grading outfit.

A. Well, there were, I should judge, about fifteen men on an average all the time; perhaps more or less.

Q. For how long a time would — say it would average about 15 men?

A. From about the 10th of July until some time about the first of October, I believe.

Q. How far did you say you went above the work after you was interrupted on the 8th of September?

A. How far up to the next grading?

Q. How far up the river—up the canyon?

A. About a mile and a half.

Q. What gauge road-bed were you building?

A. 14 feet on embankments.

Q. I mean whether standard or——

A. Standard gauge.

Q. What was the size of the profile?

A. The width of the road-bed, 14 feet on embankments and 18 feet on excavations.

Q. Now, do you mean that is the way you constructed it?

A. Yes, sir.

126 Q. Examine this map and state whether the river—channel change as you speak of and the 400 feet of grading—whether it was upon the same—covered the same ground—included within the same area of ground?

Mr. BROWN: Covered the same ground as that there?

Mr. THURMAN: Yes.

Mr. BROWN: I don't understand that question, where they are on that map.

Mr. THURMAN:

Q. State where they are on that map; state whether they cover the same location on that map.

A. Yes, sir.

Q. You have got the point of Hanging rock, just mark that.

A. You wish the channel change marked?

Q. Yes, sir.

Mr. WEDGWOOD: And give him the words so that the reporter an get it.

A. I marked it "channel."

Mr. THURMAN:

Q. Now describe it in words so as the stenographer can get it in his notes?

A. Beginning at a point opposite the Hanging rock, thence parllel—nearly parallel—to the river 300 feet easterly, more or less—300 feet, more or less.

Q. Now, I will ask you if those channel changes and the grading hat you have referred to was within the lines of the location on he south side of the river.

A. They were within the—well, I don't quite understand the meaning of the question.

Q. Within the lines of the survey, 200 feet from the center line—00 feet each side?

A. Yes, sir.

Q. They were within that 200 feet in width?

A. Yes, sir.

Q. Now, what claim or land were they on, if you know?

Mr. BROWN: We will object to that. He, of course, doesn't know anything about the location of Mr. Murphy. Murphy has sworn he left there long before. In fact, Murphy didn't know where his claim was. There is nothing definite about it.

127 Mr. THURMAN:

Q. Was it known by any name there?

A. It was known as the Murphy claim.

Q. Do you know where Ferguson's land is?

A. Yes, sir.

Q. Where was this land where the changes were made with reference to the Ferguson land and the Hanging rock?

A. It was between Ferguson's west line and the Hanging rock.

Q. It was what?

A. Between Ferguson's west line and the Hanging rock.

Q. That is where the grade was—where the changes in the channel were made that you have described?

A. Well, the change in the channel was not made; it was just—we attempted to make it.

Mr. BROWN:

Q. The change of the channel was up farther, above?

The COURT: I understood him to say the change of the channel was between the North and the South fork, easterly from Ferguson's.

Mr. HARKNESS: But he spoke about being interrupted in attempting to change the channel. That is a different place.

Mr. THURMAN:

Q. That is what I refer to as the channel-changing that you refer to, that you was making at the time of the interruption.
A. Yes, sir.
Q. Now, that is, I understood you to say, on what is known as the Murphy claim?
A. Yes, sir.

Cross-examination.

By Mr. BROWN:

Q. How old are you?
A. Twenty-three.
Q. What, 23 years old?
A. Yes, sir.
Q. You had charge of this grading—river work—up there?
A. Yes, sir.
Q. How long have you been in the employ of the Rio Grande?
A. Most of the time since January of 1891.
128 —. Since 1891?
A. Yes, sir; most of the time.
Q. Let's see. How old would that make you—17 years old when you went in their employ?
A. 18, won't it?
Q. 18 years when you went in their employ?
A. Yes, sir.
Q. Were you a civil engineer then?
A. No; I wasn't a civil engineer.
Q. When did you become one?
A. Last year.
Q. Last year?
A. Yes, sir.
Q. Just as you went up to take care of this work?
A. Yes, sir.
Q. What had you done before that?
A. Oh, I had been an all-around man in an engineering party, I guess.
Q. An all-around man, and you graduated or changed from an all-around man to a civil engineer and went up to tend to this work?
A. Yes, sir.
Q. Have you any definite thing to determine just when it was that you went up?
A. The first day of July.
Q. What had you been doing just before that?
A. I had been working down on the Sevier branch.
Q. On the Sevier branch?
A. Yes, sir.
Q. And the change of location makes you fix the date?
A. Yes, sir.

Q. On the first day of July you went up to these premises?
A. Yes, sir.
Q. What did you—where did you stop nights, camp?
A. At Thayer's.
Q. At Thayer's house?
A. Yes, sir.
Q. You found the power-dam people up there working, I believe you said?
A. Excuse me. I boarded at Thayer's and slept in a tent.
Q. Well, that is near enough. You found the power-dam
129 people working up in that vicinity, did you, at that time?
A. Yes, sir.
Q. About how large a force were they running?
A. They had about five or six men in their engineering outfit and about the same amount in their grading outfit; perhaps they may have had ten men.
Q. Ten men in the grading?
A. As near as I know.
Q. They were there; their work was being openly done when you went up; they were at work?
A. They were at work in the canyon.
Q. Yes; making their grade and making a survey?
A. No response.
Q. Now, have you any date as to just when it was you quit work entirely on this river or on that railroad grade or that railroad survey?
A. I haven't with me; I could get it.
Q. What would it be? What would you get—a memorandum or receipt or statement or what?
A. I could get a memorandum.
Q. You could get a memorandum?
A. Yes, sir.
Q. One that you kept at the time?
A. Yes, sir.
Q. You kept a memorandum; what did you go to doing when you quit there?
A. Went to work on the main line of the Rio Grande Western railway.
Q. The main line?
A. Yes, sir.
Q. What was the last thing you did there, up in Provo canyon?
A. Retraced the line from the mouth of the canyon.
Q. Retraced the line, rerun it?
A. Yes, sir.
Q. Did it need retracing?
A. No; I don't think; I don't know that it did.
Q. What did you retrace it for if it didn't need it?
A. To make the final location.
Q. To make a finer location?
A. Yes, sir.
130 Q. Finer or final?
A. Both.

Q. Final and finer; did you change the location or make it the same?

A. Well, I made it as near the same as practicable.

Q. As nearly the same as practicable; is that exactly the same or a shifting of it?

A. Shifting of it in places.

Q. A shifting of it in places; did you stick any stakes?

A. Yes, sir.

Q. Was there more than one line of stakes when you commenced that retracing work?

A. Not that I know of.

Q. When did you begin the retracing and when did you quit it?

A. Well, I was working on it all the time I was in the canyon when I was not busy with the construction.

Q. Yes; between times you would work a little on the construction and between times you would go to retracing in another part of the canyon—retracing lines that had been run; is that it?

A. Yes, sir.

Q. That was it; were they above or below where this work was done?

A. Well, part of the time I continued the location from above the Hanging rock.

Q. Yes; and part of the time below?

A. That is beginning at the South fork?

Q. Yes.

A. And the other time below?

Q. Below Hanging rock, down to the mouth?

A. Yes, sir.

Q. You retraced all that; do you know what time you — for through retracing?

A. About the first of November, as near as I can remember.

Q. The first of November you got through with that retracing; who had been making the first tracing survey?

A. Mr. Baxter, I understand.

131 Q. Who sent you to do the work over again?

A. Mr. Baxter.

Q. He wasn't satisfied with his own survey and had you do it for him over again?

Mr. HARKNESS: I object to it. It is an argument.

Mr. BROWN:

Q. Did he say whether he was satisfied or not? Did he give any reason why you should do that work over again?

A. He didn't say why I should do it, but it is generally understood that the final location comes last.

Q. That the final location comes last, and up until you put the finishing touch on there was no final location of this survey; is that it?

A. Well, I don't know that I put the finishing touch on. Mr. Baxter put the finishing touch on.

Q. Oh, the final was to come after your retracing. There was to be another survey to make it final?

A. No, sir.

Q. Not any other?

A. No, sir.

Q. Yes; at all events, I say, after Baxter's survey Baxter sent you to do your retracing. That is true, ain't it?

A. Yes, sir.

Q. You spoke of doing some work up between North and South fork that you think is a mile and a half above Hanging rock?

A. I believe so.

Q. Was that work done before or after the grading was done by or near the Hanging rock?

A. It was done after.

Q. After this little controversy in which Judge King figured, you went to work then between North and South fork?

A. Well, we had been working there about two weeks, I should judge.

Q. You had been working there?

A. Yes, sir.

Q. About two weeks before that 9th day of September?

A. Yes, sir.

Q. And how long after the 9th day of September did you
132 continue to work?

A. Some time in October; I don't remember when it was.

Q. Some time in October. What was you doing up there?

A. Building a railroad.

Q. Building a railroad; making grade?

A. Yes, sir.

Q. Who was doing the work—any contractor, or you hire men?

A. A contractor.

Q. Had you let the contract?

A. No, sir.

Q. Who had let the contract?

A. The chief engineer, I suppose.

Q. The chief engineer had let the contract? He didn't leave that to you?

A. No, sir.

Q. You were up there with these contractors seeing that work done between North and South fork until some time in October, 1896?

A. Yes, sir.

Q. Last October?

A. Yes, sir.

Q. Were you interrupted in your work up there by anybody?

A. No, sir.

Q. Didn't these power men come up and drive you off?

A. No, sir.

Q. What did you quit work for in October?

A. I had instructions to quit.

Q. Oh, you had instructions to quit. During the time that you

was up there—from September 9th to October—you received no word or hint from these power men, and they did not interfere with you at all, did they?

A. No, sir.

Q. Yet you were instructed to quit the work in October last?

A. Yes, sir.

Q. Who gave you those instructions?

A. Mr. Yard.

Q. Mr. Yard?

A. Yes, sir.

Q. In writing or verbal?

A. In writing, I believe.

133 Q. In writing; where is that writing?

A. I do not know whether I have it or not.

Q. When you were working down near Hanging rock, you say how many feet long did you make your grade?

A. About four hundred, I think.

Q. One hundred?

A. Four hundred.

Q. Four hundred. How near to this what you call Hanging rock does that grade begin?

A. About 600 feet, I should judge.

Q. 600 feet away, and then runs 400 feet up the river?

A. Yes, sir.

Q. So that the upper end of it is a thousand feet away from the Hanging rock?

A. Very nearly.

Q. And 600 feet the lower end. Was there any grading or anything done in that 600 feet?

A. I attempted to make a channel change in it.

Q. Make a channel change? Does that channel change go right down to the Hanging rock?

A. It comes down to opposite the Hanging rock

Q. To opposite the Hanging rock?

A. Where the channel change was to be made; yes, sir.

Q. Could you by looking at this map tell me the exact point where that grading began?

A. Not the exact point. I could tell you very nearly.

Q. With this schedule you could tell me pretty close what 600 feet would be, couldn't you? Got the schedule in your pocket?

A. No, sir. Well, it is about in there.

Q. Just mark it. Nearly opposite the point marked 643 plus 40?

A. Yes, sir.

Q. As they appear in figures on this map. That is a station, isn't it, 643 plus 40?

A. Yes, sir.

134 Q. At this point where you call Hanging rock it is a natural abutment, ain't it?

Mr. WEDGWOOD: We object to it as not proper cross-examination.

The COURT: It is scarcely cross-examination, but you can answer the question.

Exception taken.

Mr. BROWN:

Q. I will change the question. How near the rock was you excavating?

A. Within about ten feet, I should judge.

Q. You done that excavating in what, in dirt or in rock?

A. In dirt.

Q. You didn't start in to work on the rock at all?

A. No, sir.

Q. Simply working the dirt ten feet away from it?

A. About ten feet away from it, I should judge.

Q. That was on the south side that you were working—the south side of the river?

A. Yes, sir.

Q. Didn't you start to do work on the rock at that time—to blow it out?

A. No, sir.

Q. But ten feet away from it, on the south side of the river, you were excavating in the dirt?

A. Yes, sir.

Q. What is the schedule of this map? Is there room on the south side between the Hanging rock and the river to do any work on the dirt?

A. Yes, sir.

Q. Who made this map?

A. I do not know.

Q. You did not?

A. No, sir.

Q. You have got the river coming right down to the Hanging rock and the railroad there. You told us—when Cramer came up there, didn't he tell you that he wanted to preserve that hanging rock as an abutment for a dam?

A. I believe he did.

Q. He did tell you that?

A. I believe so.

Q. Did you quit when he told you that?

A. No, sir.

135 Q. You was going to work to remove that Hanging rock, wasn't you?

A. No, sir.

Q. That work that you was doing there wasn't intended to remove the Hanging rock?

A. No, sir.

Q. Could you run your railroad on the south side of that without removing it?

A. No; we could not run a train up there.

Q. Could you build a grade?

A. Yes, sir.

Q. Build a grade without removing it?
A. Yes, sir.
Q. Wasn't going to remove it for the sake of building the grade there?
A. No; I wasn't.
Q. Or the men that you had in your employ?
A. No, sir.
Q. You say you was working in the dirt. What kind of tools were you using?
A. Picks and shovels.
Q. Weren't using horses?
A. Not in the cut at the rock.
Q. Picks and shovels is what you were using with your men?
A. Yes, sir.
Q. Have any drills with you at that time?
A. I did not see any.
Q. Any giant powder?
A. I did not see any.
Q. Now, when you were interrupted in August by Mr. Cramer did he use any violence towards you?
A. No; he did not.
Q. Pull any gun on you?
A. No, sir.
Q. What — you mean by striking attitude? What do you mean by that? He didn't strike anybody, did he?
A. No, sir.
Q. Didn't strike at anybody?
A. No, sir.
Q. Didn't double up his fists at anybody?
A. Not that I know of.
Q. Not that you know of?
A. No, sir.
Q. He shooed the horses; held up his hands?
A. Yes, sir.

The COURT: Did you say shooed the horses, Mr. Brown?

136 Mr. BROWN: Shooed them—shoo the chickens off the porch; and the *and the* horses were scared and stopped?

A. Yes, sir.
Q. That is all he did, was it, besides what he talked?
A. Yes, sir; that is all.
Q. Did he get off his horse to do that?
A. Yes, sir.
Q. Got off his horse to scare the horses in that way? In that talk that you had with Cramer, after he explained to you that he wanted to use that rock as an abutment, did you tell him that you wouldn't blow it out while he was away?
A. Yes, sir.
Q. You did?
A. Yes, sir.
Q. There was talk, then, about your blowing it out?
A. He was doing all the talking about blowing it out.

Q. He did all the talking. He told you he didn't want you to blow it away, and you told him you would not while he was gone?
A. He asked me not to.
Q. Were you working on the grade of the road or above?
A. At this time, do you mean?
Q. At the time when he came up there and asked you not to blow out the Hanging rock?
A. I don't quite understand the question.
Q. Remember the time he came there and asked you not to blow out the abutments or the Hanging rock?
A. Yes, sir.
Q. You remember that occasion?
A. Yes, sir.
Q. Well, now, were you working on the grade of the road above it? You know what the grade of the road is.
A. The profile grade or the track grade?
Q. The grade line of the railroad. Were you working on that line?
A. Yes, sir.
Q. You was working on the grade line of the railroad?
A. Yes, sir.
Q. Wasn't above it?
A. No, sir.
137 Q. Was there a stake of the original grade right there?
A. I set stakes.
Q. Before you commenced work?
A. At the time.
Q. Had there been stakes stuck there before?
A. Only center-line stakes.
Q. Only the center-line stakes?
A. Yes, sir.
Q. Had that been staked there before that?
A. Yes, sir.
Q. Before you commenced that work on it, September 8th, the center-line stake had been stuck there before?
A. Yes, sir.
Q. Do you know when it had been staked there?
A. No; I do not.
Q. Who had stuck it?
A. Mr. Baxter had charge of that.
Q. Baxter had put the center-line stake before that, but you don't know when. Did you see him place it there?

Mr. WEDGWOOD: He didn't say—he said Baxter had charge of that.

Mr. BROWN:

Q. Did you see him place it there?
A. No, sir.
Q. Did you see either him or the men under his direction place that stake?

A. I did not see him do it; no, sir.
Q. Don't know when it was done?
A. No; I don't know when it was done.
Q. Cramer told you where he was going when he went away that day, did he?
A. I don't believe he did, unless he said he was going down town I wouldn't say that he did not say that.

Redirect examination.

By Mr. THURMAN:

Q. What, if any, was the difference in the levels of these two lines—the one on the north side and the one on the south side—after the change?
A. Well, I do not know; I did not have anything to do with the line on the north side.
138 Q. Do you know where the line on the north side was?
A. Yes, sir.
Q. Well, was there any apparent difference between the level—as to the level?
A. Well, I should judge that there was three to five feet difference, judging from the appearances. Of course, I could not say.
Q. Which was the higher?
A. The line on the south side.
Q. On the south side?
A. Yes, sir.
Q. Now, in retracing did you change any levels at all?
A. No; not any material change.
Q. Left the levels just as they were, practically?
A. Yes, sir—that is, the grade-line levels.
Q. To what extent did you make any change at all from the original line? You stated you shifted a little—varied a little. Just state what the extent was.
A. Well, all the way from nothing to about forty feet.

The COURT:

Q. Do you mean in altitude or varying from side to side?
A. From side to side.

Mr. THURMAN:

Q. No change in the grade at all in the level?
A. Not any material change.

Recross-examination.

By Mr. BROWN:

Q. One question more. He asked you about that work on the north side. Is there some grading now appearing on the north side—some railroad grading?
A. Yes, sir.
Q. And how far from the Hanging rock?

A. The west end of it is probably just about opposite the Hanging rock and it is about 250 feet, more or less, distant from the Hanging rock.

Q. Do you know who did that?

A. Why, Deal Brothers and Mendenhall were the contractors.

139 Q. Did you supervise that work?

A. No, sir.

Q. Was it being done when you first went there?

A. Yes, sir; they were working on it then.

Q. How long after you went there did they continue to work on it?

A. I do not think they worked on it over a week.

Q. Over a week?

A. I don't think they did; I don't know; something like that.

Q. Not over a week. Who was the engineer that had charge of that grading?

A. Mr. Baxter, I have heard.

Q. You have heard Baxter, but you don't know?

A. No, sir.

Q. So you didn't—when you first went there you didn't go at once to supervising grading?

A. No; not any of the old grading.

Q. They were not grading when you first went there, were they?

A. No, sir.

Q. On the south side?

A. No, sir.

Q. Not grading on the south side. Remember when they first went to grading on the south side?

A. About the first week in July, as near as I can remember.

Q. And you went there the first week in July?

A. Yes, sir; and started to work.

Q. What did you do when you started to grading, where?

A. With Mr. Baxter's party.

Q. Who; with Mr. Baxter's party?

A. Yes, sir.

Q. Whereabouts were you working with his party?

A. From the bridge at Thayer's up to South fork.

Q. Well, you worked all that distance, did you—from the bridge up to South fork?

A. Yes, sir.

Q. With his party?

A. Yes, sir.

Q. Well, just what part of it were they when you commenced work; were they still at the bridge when you got there the first day of July?

140 A. They were above the bridge some distance.

Q. Then you didn't work from the bridge, as you testified?

A. Yes, sir.

Q. You did work from the bridge?

A. Yes, sir.

Q. Then the surveying had not been done above the bridge, had it, if you commenced work at the bridge?
A. Partly, I suppose.
Q. Partly, you suppose?
A. Yes, sir.
Q. Had to be gone over again after you got there, did it?
A. I don't know that it did.
Q. Don't know. Which side of the river did you work when you first got there, the north or the south side?
A. The south side.
Q. All the time?
A. Yes, sir.

Adjourned until Tuesday, March 30th, 1897, at 10 o'clock a. m.

Resumed session March 30th.

F. E. BAXTER recalled for plaintiff.

Examined by Mr. THURMAN:

Q. You stated yesterday that you made a survey of this line from Provo up the canyon?
A. Yes, sir.
Q. What length of line from Provo up the canyon did you survey?
A. I surveyed all of the line from Provo through the canyon and beyond.
Q. Well, how far north and east did you go—what point?
A. Well, I made one survey extending all the way to Park City, and another one from Charleston to the head of Daniel's pass.
Q. How far is Charleston from Provo?
A. About 23 miles by our line.
Q. Is that above the point in dispute here?
A. It is.
Q. North and east?
A. North and east.
Q. Did you make accurate notes of that survey?
A. I did.
Q. Did your notes also show the change made at the point
141 in dispute here?
A. Yes, sir.
Q. From the north to the south side of the river?
A. Yes, sir.
Q. What did you do with your notes?
A. Turned them in to the office of the chief engineer.
Q. Who was the—who at that time was the draftsman—made the draft?
A. Mr. Zulick.
Q. Zulick?
A. Yes.
Q. Do you know where he is?
A. I believe he is in Salt Lake.

Q. Did you turn your notes in of the whole survey at the same time, or did you turn in the notes of one survey before?

A. I usually turn them in in sections of eight or ten miles, but after the survey had progressed to Charleston I think I turned in the complete notes to that point.

Q. Was there more than one map made that you know of?

A. Yes, sir; there was a map made for each line of the survey.

Q. Was there a map made, or did you turn in your notes before this change in the line up there?

A. Yes.

Q. And after that change you turned in notes again, did you?

A. Turned in notes of the line.

Q. That showed the change?

A. Yes, sir.

Cross-examination.

By Mr. BROWN:

Q. Just a question or two. These notes show the change of course from the north side to the south side?

A. Yes, sir.

Q. And they show the exact date of that change, do they not?

A. Why, I don't know whether they do or not.

Q. You don't know whether they do or not? In these notes I understand you put down the date that you made surveys?

A. Yes, sir; as a rule.

142 Q. They show the exact date when you commenced surveying south of the river, would it not?

A. Not necessarily.

Q. Not necessarily? You didn't put it down, then, when you moved south of the river? Did you keep dates when you moved north of the river?

A. We kept dates, as a rule, but sometimes we worked at different pieces of work the same time, and the men sometimes neglects to put down the date.

Q. Did you continue the survey north of the river and south of the river at the same time?

A. No, sir.

Q. When you commenced south of the river you ceased entirely surveying on the north, did you?

A. Yes, sir.

Q. Never did any more work of surveying there?

A. I think not.

Q. After you commenced on the south side of the river you ran clear through to Charleston on the north side before you went over, didn't you?

A. Yes, sir.

Q. And sent in the notes?

A. Yes, sir.

Q. Clear to Charleston?

A. Yes, sir.

Q. And a map was made of that?

A. Yes, sir.

Q. And that map was exhibited here yesterday? That was the same?

A. That was the map that was made. I didn't see the map that was exhibited yesterday.

Q. You furnished the notes from which these maps were made? Of course, you were the one that furnished the dates. You furnished the date when you ceased work and when you got to Charleston, on the north side?

A. Yes, sir.

Q. Remember what date that was?

A. I think it was some time in June.

Q. That you got through to Charleston and turned in your notes on the north side?

A. Yes, sir.

Q. That is correct, is it?

A. Yes, sir.

Q. Now, do you remember when you first reached the
143 point in controversy with your line? Was it when you got to Thayer's?

A. Yes; I know about the date.

Q. What was the date?

A. About the 12th or 13th of April.

Q. Were any other men to work there then when you arrived there?

A. Yes, sir.

Q. Who was it?

A. There was some surveyors there whom I believe were in the employ of the power company, I believe.

Q. What?

A. There were some surveyors there whom I believe were in the employ of the power company.

Q. Cramer?

A. I think Mr. Cramer was up there.

Q. Searle?

A. I think so; yes, sir.

Q. Who else do you remember?

A. Well, some assistants; I don't know their names.

Q. What were they doing?

A. I don't know the nature of the work at that time.

Mr. THURMAN: We object to this.

Mr. BROWN:

Q. Surveying a dam site, wasn't they?

Mr. THURMAN: Wait a minute. We object to this as not proper cross-examination. Besides, we don't want to be shut off from rebuttal.

The COURT: Answer the question. Take an exception, Mr. Thurman.

Exception taken.

Mr. BROWN:

Q. They were surveying for a dam site; what did you say to that?
A. They were surveying for a dam site; is that the question?
Q. Yes.
A. I don't know.
Q. Don't know; cutting brush, were they?
A. I don't know that I saw them cut any brush.
Q. Well, they had cut some right there, hadn't they?
A. There had been some brush cut.
Q. You adopted a line to run your railroad through which
144 they had cut brush, didn't you?
A. I think there was one place where they had cut brush which we crossed.
Q. Utilized the place which they had cleared for running your line; is that right?
A. Well, it was just for a short distance.
Q. Well, it was true, so that you did utilize space they had cut for running your line?
A. I think we did for a short distance.
Q. How long a distance?
A. Might have been fifty feet long.
Q. Wasn't it for a half a mile?
A. No, sir.

Redirect examination.

By Mr. THURMAN:

Q. And where was that brush cut?
A. At a point perhaps a quarter of a mile easterly or northeasterly from the county bridge.
Q. Well, was it on the land in dispute or some other land?
A. I do not think it was.
Q. Above the land, was it, or below?
A. I think it was below the land.
Q. One question I should have asked you a while ago: When this change was made, does the road as changed or the line connect at both ends with the first line you run?
A. It does; yes, sir.
Q. It wasn't a change all along?
A. No, sir.
Q. Just for a distance, and then come back into the line—it runs back to the north side of the river and connects with the first line you run?
A. Yes, sir.

Recross-examination.

By Mr. BROWN:

Q. Where did you say you cross the river?
A. We will cross it in three places altogether.

145 Q. Well, coming back from this land now in dispute?
A. For this change, the crossing for this change?
Q. The first crossing point.
A. The first crossing point was in about a mile and a half of Provo.
Q. As you come down the river?
A. As we leave Provo, going up the river.
Q. Beginning at the point in dispute there by Hanging rock and coming down the river, where do you first cross the river?
A. About four thousand feet west, westwardly from the county bridge.
Q. That is below the county bridge?
A. That is below the county bridge.
Q. About four thousand feet below the county bridge?
A. Yes.
Q. That brush cutting was above or below Hanging rock?
A. It was below Hanging rock.
Q. About how far?
A. Well, nearly a mile—three-quarters of a mile.
Q. Three-quarters of a mile below Hanging rock?
A. Yes, sir.

GRANT ANDREWS sworn for the plaintiff.

Examined by Mr. THURMAN:

Q. Mr. Andrews, what business were you engaged in last September?
A. Last September I was with the engineering corps of the Rio Grande Western.
Q. At what point were you at work?
A. Last September I was in Provo canyon.
Q. What part of the canyon were you at work in along about the 10th of September or a little earlier, say from the 1st to the 10th?
A. Somewhere about the Hanging rock.
146 Q. Hanging rock?
A. And above.
Q. Do you know any other name that that is known by?
A. I do not.
Q. The land there—any claim?
A. I seen a board posted up there, and "Claim of A. L. Murphy," I believe, was the name.
Q. Who was in charge of the work that you were engaged in?
A. General charge?
Q. No; the immediate charge.
A. Mr. Morris.
Q. What kind of work was that?
A. Well, taking care of the construction and cross-sectioning—looking after the work.
Q. Do you know a Mr. Cramer?
A. I do; yes, sir.
Q. Do you know who he was—what his business was?

A. Well, I believe he claimed to be the engineer for the power company.

Q. The defendant in this case?

A. Yes, sir.

Q. Did you see him about the 10th?

A. Yes, sir; I seen him every day, so far as that is concerned.

Q. Did you see him at any time when there was any difficulty between your party and himself?

A. Yes, sir; along about that time.

Q. Just state what that was; describe what took place.

A. Well, we was preparing some work for construction; had some men there to work cross-sectioning at the time.

Mr. BROWN:

Q. Doing what?

A. Cross-sectioning—that is, getting the grade ready for the graders—and Mr. Cramer came up at that time and stopped us; told us he wanted us to stop.

Mr. THURMAN:

Q. State, if you can, exactly what he said; use his own language.

A. Mr. Cramer said to me—I was using the level—said if I didn't take that level off from the rock that I had it on that he would throw it in the river, and I refused to do it.

147 Q. Well, what took place, if anything?

A. How was that?

Q. What took place after that, if anything?

A. Well, nothing in particular; no, sir.

Q. Did you see Judge King up there?

A. I had seen him going up, but I didn't see him at the time.

Q. Now, was that all that you heard between the parties? Did you hear any conversation between Norris and Cramer?

A. Yes, sir.

Q. Just state what you heard.

A. Mr. Cramer told Mr. Norris if he did not stop the work there that he would find some means to stop him, as near as I can remember.

Q. Do you know whether the work was stopped or not?

A. Yes, sir.

Q. Was it stopped at that time?

A. Well, not just at that hour; about six or seven hours after.

Q. Where did you go to work, where were you working, above or below the Hanging rock?

A. That day?

Q. Yes.

A. We was working just below.

Q. Do you know whether they were working on the line or not?

A. Yes, sir.

Q. Stakes there?

A. Stakes was there; yes, sir.

Q. What kind of work was he doing, particular kind of work was he doing?

A. Norris, do you mean?

Q. Yes.

A. They were picking and shoveling for a grade.

Q. For a grade?

A. Yes, sir; a side-hill cut.

Q. How far below the rock?

A. Oh, I should judge about six feet; six to ten.

Q. You said you quit work six or seven hours afterwards. How long did you work after Judge King came up?

A. I don't believe they worked any.

148 Q. You met King as you came down?

A. I seen King coming up the canyon. I was doing some leveling at the place you speak of.

Q. Well, how do you know they quit work directly after he came?

A. Mr. Norris come down right directly afterwards and told me they had stopped work.

Q. You don't know it only as he told you?

A. No, sir.

Q. Now, this rock you speak of that you had your level on, was that what they call the Hanging rock?

A. Yes, sir.

Q. Is there a large rock also across the river from there?

A. Yes, sir.

Q. Now, isn't that the Hanging rock?

A. No, sir; I have always understood the one on the south side was the Hanging rock.

Q. Now, where would the line be, the line of the railroad between those two cliffs?

A. The line runs right over the Hanging rock.

Q. Right over it?

A. Yes.

Q. The center line?

A. Yes, sir.

Q. Or the 200-foot line?

A. How is that?

Q. Do you mean the center line?

A. The grade line.

Q. The line of the road-bed?

A. Yes, sir.

Q. Runs right over the hanging rock?

A. Yes, sir.

Cross-examination.

By Mr. BROWN:

Q. What time did you say you went up the canyon?

A. What time of the year I went up?

Q. Yes; what time of the year or month?

A. I went up along the first of August.
Q. The first of August?
A. Yes, sir.
149 Q. How long did you remain there?
A. I remained in the canyon until September.
Q. What time; remember what time you came down?
A. Oh, somewhere about the 18th, I guess.
Q. Was this affair with Cramer the last work you did or the last employment you had up there?
A. No, sir.
Q. You continued in the employ of the company—to work up there—afterwards?
A. Yes, sir.
Q. Whereabouts did you again work?
A. Above the point you speak of.
Q. You still continued work above?
A. Yes, sir.
Q. What was your business; civil engineer, were you?
A. No; I cannot say that I am a civil engineer.
Q. What was your business?
A. I was hired as rodman for the——
Q. Hired as what?
A. Rodman.
Q. Were you in any way connected with this grading, doing any part of it?
A. No, sir; I wasn't doing any part of the grading.
Q. Didn't work on that especially?
A. Yes, sir; I done some setting stakes on it.
Q. What?
A. Set some stakes on it.
Q. On the grade?
A. Yes, sir.
Q. Was there a stake at this place where you were at work below Hanging rock?
A. Yes, sir.
Q. It was exactly at the stake that the work was being done, was it?
A. There was some work done right at the stake and some between the stakes.
Q. Between the stake and the Hanging rock or below the first stake?
A. Between the two stakes.
150 Q. Between the two stakes?
A. Some work between the stake and the Hanging rock.
Q. You were describing these rocks to Mr. Thurman. You say you think that is called the Hanging rock on the south side of the river?
A. I understand it is; yes, sir.
Q. A similar rock is on the north side of the river, is there not?
A. Yes; there is a rock there.

Q. Both making abutments, narrowing the space in the valley at that place?
A. Yes, sir.
Q. About how far apart are those two abutments?
A. Oh, I should judge about three hundred feet apart.
Q. About how high are they?
A. The one on the south side is somewhere about twenty feet and the other is higher.
Q. The one on the north side is still higher?
A. Yes, sir.

Redirect examination.

By Mr. THURMAN:

Q. I want to ask you how far up the river was it that you worked after this interruption at the rock.
A. Oh, we did some work about three miles above there; but the main part was somewhere about a mile.
Q. Do you know what is known as the Ferguson claim up there?
A. Yes, sir.
Q. Was it above that?
A. Yes, sir.
Q. Did you know whether there was any dispute about that or not—the Ferguson claim?
A. No, sir; not—only through hearsay.

151 Recross-examination.

By Mr. BROWN:

Q. Just one question: When you had this little controversy with Cramer, did he state any reason why he wanted you to quit work at that particular place?
A. No, sir; not as I know of.
Q. Didn't give any reason?
A. He said we had no right there.
Q. Didn't he say he wanted to preserve that locality, those rocks, for the purpose of putting a dam there?
A. Not to me he did not.
Q. Nor in your hearing?
A. No, sir.
Q. Didn't say anything of that kind?
A. No.

E. J. YARD recalled for plaintiff.

Examined by Mr. THURMAN:

Q. Mr. Yard, how long did you say you had been in the employment of the Rio Grande Western Company?
A. About 13 years.
Q. What line of railway has it operated within your knowledge during that time?

A. The main line in Utah.
Q. The main line?
A. Utah branches.
Q. Where from? Name the terminal points.
A. The main line, including a portion of leased line, extends from Ogden to Grand Junction.
Q. From where?
A. From Ogden to Grand Junction.
Q. Does it pass through Provo?
A. Yes, sir.
Q. Now, state whether that is the line with which this particular survey in question here connects.
A. It is.
Q. Now, you stated you had worked 13 years for the Rio Grande Western. Do you mean the company as it is now organized?
A. No; I mean for the road, not the name. It was at first the Denver and Rio Grande.
Q. The Denver and Rio Grande Western, you mean first?
152 A. I mean the Denver and Rio Grande Western first.
Q. And then?
A. And later under the name of the Rio Grande Western.
Q. One question further about the map: Did you authorize the making of the map after the change was made in the survey up there on the Murphy claim?
A. Yes, sir.
Q. Did you get that map made?
A. Yes, sir; I had it made.
Q. What length or what distance did you authorize the map to be made for?
A. A distance of twenty miles.
Q. You have that map here, have you?
A. Yes, sir.
Q. Just produce that map, will you?
A. Yes, sir. (Map produced.)
Q. You have examined this map, have you?
A. Yes, sir.
Q. Is this the map that shows the changes made in the road that you testified about?
A. I think so; yes, sir.
Q. And this is the map you say that was made by your authority after you made the survey?
A. Yes, sir.
Q. Who made the survey?
A. The surveys were made under the direction of Mr. Baxter.
Q. Do you know whether the notes were returned to the office?
A. They were; yes, sir.
Q. Could you tell by examination of the map whether they were made in accordance with the notes?
A. To the best of my knowledge they were.
Q. Who is the—or was the draftsman that prepared that map, if you know?

A. I do; Mr. Zulick.
Q. Do you know where he is?
A. Salt Lake.

Mr. HARKNESS: We have got to call the draftsman unless Mr. Brown admits it.
The COURT: As to the map being correct?
Mr. HARKNESS: Yes, sir.

Mr. BROWN:

Q. Did you ever prepare the notes of this map?
153 A. No, sir; I did not.
Q. So that you really know nothing about it. You say, so far as you know, it is all right, but you know nothing about it.
A. No, sir.
Q. It is a mere presumption that Zulick would not be fool enough to take any other notes and make the map?
A. Oh, I think if there was any radical change I would know it.

Mr. BROWN: I have no objection to the maps being used here put in for that purpose.
Mr. HARKNESS: There is one more thing; we have been using a duplicate.
The COURT: Of the map that is connected with the complaint?
Mr. HARKNESS: Yes; it is a blue print, so that there is no mistake about it being a duplicate, and I suppose there will be no objection.
Mr. BROWN: There is no objection to its being use- for what it is worth.

Mr. BROWN:

Q. One question, Mr. Yard: I spoke to you—I asked you to bring in certain instructions you received in writing to quit work. Have you got them yet?
A. No; I have not got them yet.
Q. Well, get them, if you can.
A. Yes, sir.

JOEL RICKS sworn for the plaintiff.

Examined by Mr. THURMAN:

Q. I will ask you to examine this document, Mr. Ricks, and state if you recognize it.
A. Yes, sir; I recognize it.

Mr. BROWN: Recognize what?
Mr. THURMAN: The document. I shall offer that, Mr. Brown.
Mr. BROWN: We object to this as entirely irrelevant and
154 immaterial, for the reasons that—all the reasons stated yesterday as to the deed.
Argued to the court.
The COURT: I think the objection will be sustained, so far as I see now.

Mr. THURMAN: We will take an exception.

Mr. HARKNESS: I think that is all. We will rest. We want to make one reservation, that when Mr. Zulick comes at 2 o'clock we may examine him in regard to these maps, and if Mr. Brown and Mr. Bailey consents we may go along.

Mr. BROWN: I shall have a motion for nonsuit. I suppose his testimony wouldn't make any difference. For the purpose of that motion his testimony may be considered in.

Recess for 10 minutes taken.

Resumed session.

Mr. BROWN: May it please the court, the defendants move for a nonsuit on the ground that—

First. That the plaintiff suing as the grantee of Murphy shows no title to the lands which he seeks to quiet, for the reason that Murphy had no title which was the subject, which would be the subject, of this suit; no right which he could quiet.

Second. That Murphy has conveyed none to this plaintiff, and therefore it has no title.

Thirdly. For the reason that the plaintiff is not authorized by any law to build a railroad in this Provo canyon; that the period during which it had the license to build a railroad has elapsed, and that it no longer has the power or right to build any road in that canyon, and has not been authorized by the legislature of Utah or any other legislature to go there for that purpose. The franchise—
that is, a limit of two years for commencing work—and a
155 limitation of ten years for completing it, which would be an absolute power to put a road in this canyon—has elapsed.

Fourthly. The act of Congress conferring upon railroads a right of way through the canyon gives—does not give the road—does not give the railroad any title or equity or interest in the land until the map or profile provided for therein has been approved, and no map or profile has been shown to have been approved whatsoever, either the first or the second, of the right, the particular right, of way sought to be quieted. It is shown affirmatively that the map was not made until after the commencement of this suit. Of course, they had no profile to that particular piece of land—could not have been filed and could not have been approved. I will add to that that the affidavit attached to the last map, the corrected map, shows it was made in December, over three months after the commencement of this suit. Of course, it could not have been approved before it was sworn to.

Fifthly. It appears by the plaintiff's own evidence that the defendants were already in possession, working upon these premises in advance, before any attempt at location of a road by this railroad company.

(Sixthly.) It appears affirmatively that there was no purpose or intent on the part of the railroad company to build a railroad of any kind up this canyon. They simply went there for the purpose of making a move to prevent these defendants from working; no

other objects. That is our motion, may it please your honor, and I will take them up briefly and consider these questions as I have stated them.

Argued to the court.

Recess taken until 2 o'clock p. m.

Resumed session.

Argument concluded.

Recess for 10 minutes.

Resumed session.

The COURT: While the different points raised here in this
156 argument under this motion leaves the court in some considerable doubt, I think that least harm will come, at least, and I believe further that there has at least been a *prima facie* case made out by the plaintiff; hence I will have to overrule the motion for nonsuit, or rather deny it.

Mr. BROWN: We will take an exception. Your honor, I do not think we will lose any time by having an adjournment until tomorrow morning at 9.30.

Mr. HARKNESS: Can't we examine the draftsman?

Mr. BROWN: Certainly.

The COURT: There was a witness that was to be examined on the part of the plaintiff.

L. F. ZULICK sworn for plaintiff.

Examined by Mr. WEDGWOOD:

The COURT:

Q. L. F. Zulick, is that your name?

A. Yes, sir.

Mr. WEDGWOOD:

Q. Mr. Zulick, what is your business?

A. Civil engineering and draftsman.

Q. Were you in the employ of the Rio Grande Western Railway Company in the year 1896?

A. Yes, sir; since February.

Q. In what capacity?

A. As draftsman at the office.

Q. You may examine this plat marked "Pl'ff's Ex. F." Do you know who made that?

A. Yes.

Q. Who did?

A. I made it.

Q. From what did you make it?

A. From the original notes of the engineer, of the locating engineer, Mr. Baxter.

Q. Is it correct from those notes?

A. Yes, sir.

Q. Where did you get the notes?

A. They were sent into the office by Mr. Baxter from the books, the field books.

Q. I now hand you a map marked "Pl'ff's Ex. G." You may examine it and see if you know who made it.

157 A. Yes; I made this map.

Q. You made it?

A. Yes, sir.

Q. From what did you make it?

A. From the original notes of our locating engineer.

Q. Who?

A. Mr. Baxter.

Q. Is it correct?

A. Yes, sir.

Q. I now hand you, Mr. Zulick, the map attached to the plaintiff's complaint and marked "Exhibit A." Is that an original map or is it an artificial copy some way?

A. It is a print made by the sun from a tracing; from a copy which I made.

Q. A copy which you made. Now, examine this and see if that is a duplicate made in the same way.

A. This is a duplicate, and the sun makes no mistakes.

Q. Now, Mr. Zulick, did you make that map from the tracing from which that was copied from the field-notes?

A. Yes; this agrees with the original notes.

Q. Well, Mr. Zulick, just answer the question.

Question read.

Q. What did you make it from?

A. I made the tracing from a paper made by somebody else.

Q. Now, I will ask you, Mr. Zulick, if you have at any time gone over that copy which you hold in your hand with the field-notes to ascertain whether it is correct with the field-notes.

A. Yes, sir; I have.

Q. Is it correct with the field-notes?

A. It is correct; it agrees with the field-notes.

158 Mr. WEDGWOOD: We will ask, Mr. Brown, to have this duplicate sun copy of Exhibit A identified.

Mr. BROWN: All right.

(Marked "Pl'ff's Ex. H, D. H. R.")

Mr. WEDGWOOD: To save any question, we will offer "Pl'ff's Ex. F" and "Pl'ff's Ex. G" in evidence, and also the copy attached to the complaint, marked Plaintiff's Exhibit A.

Mr. HARKNESS: And the other, because Mr. Brown did not make any objection.

Mr. WEDGWOOD: Yes; and "Plaintiff's Exhibit H."

Mr. BROWN: What do you offer Exhibit H as, simply that it is a copy of the one attached to the complaint?

Mr. WEDGWOOD: Simply because it has been marked in evidence.

Mr. BROWN: All right.

Cross-examination.

By Mr. BROWN:

Q. Where are those notes?
A. I have some in my pocket.
Q. Why didn't you bring them all?
A. I can bring the rest in five minutes.
Q. I know you can; I have been promised those things before; but why didn't you bring them?
A. I can go into the other room and bring 'em.
Q. Oh, they are here; fetch 'em.
A. These are the field-notes.
Q. Won't you turn to the notes of survey that pertain to station 643 plus 40?
A. Yes, sir; I have the place.
Q. Does it give any date with regard to that survey?
A. These are some of the dates, November 17th, 1896.
Q. November 17th, 1896. Does it show when that station was made; does that show?
A. Not on this particular page.
Q. Is there any on this particular page?
159 A. Not opposite that particular station.
Q. Let me see with reference to it.
A. This is the book that shows the stations from 268 to 796.
Q. What was the station 640?

Mr. HARKNESS: 643 plus 40.

A. This is part of that run, beginning 268, beginning November 17th, 1896.

Mr. BROWN:

Q. Whose handwriting is that word November 17th, 1896?
A. The same man that copied the field-notes.
Q. Who was that? Who was the map that copied the field-notes?
A. That is the transcient man. This is the trancient book.
Q. It was not Mr. Baxter?
A. I do not know.
Q. Don't know about that? Do you know Mr. Baxter's handwriting?
A. Yes.
Q. That says line from Provo, November 17th, 1896. That indicates that the line from Provo was run at that date, does it?
A. The line was changed.
Q. Was changed at that date, November 17th, 1896?
A. That is what it says right there.
Q. Changed at that date?
A. That this portion of the line was changed.
Q. Where is that station that I first called your attention to?
A. 643? Here.

Q. 643 plus 40. I don't see it. Do you?
A. 42.
Q. 642 and 649. I don't see 643.
A. 3, 4, 5, 6.
Q. All right. Plus 40; that is an extra station, is it?
A. That is a plus between.
Q. That is a plus between, is it? No date on that page?
A. No.
Q. Do you know whether these smaller stations were down below 643 or above, these smaller numbers?
A. They start out from Provo.
Q. Provo is number one?
A. Northeasterly; yes.
160 Q. Then, we will presume they were below?
A. Yes.
Q. Won't you take the two maps, "G," and the other map and look at them and tell me the first point of divergence from the two maps there for different routes? I want you to tell me where they diverge up the river.
A. About station 503.
Q. 503. Show it to me on the map.
A. On the amended map?
Q. 503. Now show me the other.
A. The other are spurs.
Q. Is 492 the same on both maps? Look and see.
A. 492 plus 11.6 P. T.
Q. Yes.
A. 502 plus .03.
Q. 502 does not appear. Is that the first point of divergence?
A. Yes.
Q. That first map kept on the north side of the river?
A. Yes.
Q. The new map goes on the south side of the river, does it not?
A. Yes, sir.
Q. What is that point of divergence? Is that 515 or 519? Look and see; take them both.
A. No; the alignment changes from 503.
Q. Changes from 503?
A. Yes.
Q. Won't you show me the note of survey 503?
A. 503 plus 58.
Q. 503 plus 58. There is a date opposite that, November 2nd, 1896?
A. Yes.
Q. That is indicative that that is the time that that change was made, is it not?
A. Yes.
Q. That was the time — the change in the route, was it, from the north side to the south side of the river?
A. So the notes indicate.
Q. So it would appear from the notes?
A. Yes.

161 Redirect examination.

By Mr. HARKNESS:

Q. You found a date there, November 17th, 1896. Just turn to that.

A. Yes, sir.

Q. What part of the line is that on?

A. That is at station 268. That is below the other point.

Q. What is it?

A. At station 268, which is below the other point.

Q. That is at station 268?

A. Yes.

Q. How many miles is that from Provo?

A. Five miles, about, from the depot.

Q. About five. Do you find another date there, November 2nd, 1896?

A. Yes.

Q. What station or what point of the line is that?

A. That was opposite 503.

Q. Plus 58?

A. 503.

Q. You say those are the dates which the line was changed. What do you mean by the line, the particular place, or the whole line?

A. In the first place, a preliminary line is simply located by tangents and circular curves, and after a line is definitely located to build a grade by, lay a track on, they run transition curves from the tangent to the circular curves; so in these notes. I believe they have backed up the line from the canyon down, so that the dates probably cannot be followed up consecutively from the first page.

Q. You think they worked down?

A. Yes; part of the time.

Q. These are the dates, then, at which they were at these particular point-, you understand?

A. Yes.

Q. They were putting in—changing—putting in these additional curves, etc.?

A. Yes.

Q. Does that show any change in the preliminary line of
162 grade—that is, the level?

A. A slight difference they show.

Recross-examination.

By Mr. BROWN:

Q. I didn't quite understand the answer you gave Judge Harkness. I wish you would repeat it as to the purpose of making the final survey of that curve.

A. Oh, yes. The location of a line is marked by straight lines, tangents, and curves.

Q. Yes.

A. And on preliminary location there are only circular curves located between the tangents, but in order to build a grade over which they want to lay rails and run trains they run transition curves from the tangents to the circular curves, which would only be necessary directly before commencing construction, as the location on the ground is not materially changed; it is simply easing the curve to get on to the tangent curve.

Q. This running from the circular curve to the tangent was necessary to be made before the work began?

A. Yes, sir.

Q. And of course before a contract could be let?

A. Yes.

Q. So that it was not in condition to let the contract—to go to work—the survey wasn't in shape until this change was made; is that so?

A. Well, I don't know.

Q. You don't know? Well, what do you laugh about it for if you don't know?

A. It depends on the degree of curviture, perhaps.

Q. Yes.

A. There are a great many railroads built without any transition curves.

Q. Not very well built, are they?

A. Well, they have been built so for a great many years.

Q. You don't build any that way, do you?

A. I am not in the business.

Q. The Rio Grande Western don't build any that way?

A. No.

163 Q. And for the Rio Grande Western that change in the curve has to be made before the contract is let or before it is ready to go to work on? Yes or no. Come, answer.

A. I presume so.

Q. Well, you know it, don't you; you know it, don't you?

A. Well, I only know that that is generally made.

Mr. HARKNESS:

Q. What date did you make that?

A. November 9th, 1896.

Q. This is Exhibit H. Do those notes show any change in the alignment after that date?

A. No; the alignment of the final notes is identically the same as that appearing on that blue print.

Q. You were only preparing it for grading and construction—or no matter, you don't know.

Mr. BROWN:

Q. That is, the alignment for that little piece is the same?

A. That is what I was asked.

Q. You didn't mean the alignment for that entire part of the road?

A. Well, there are the transition curves on there.

Q. Just as to this little piece as shown by the blue-print map?
A. Yes.
Q. Yes; as to the rest of it the curves were not put on it, the transition curves?
A. Well, I haven't paid any particular attention to the dates when the spurs were put onto the curves.
Q. But they were not on, so far as you know, September 10th, were they?
A. Some of them were, evidently.
Q. As to this little piece, yes; but as to the rest of the road?
A. Well, I see here a date, opposite station 519, October 28th, 1896.

Q. Yes; that is when the transition curve was put on there,
164 but I ask you if — any other part of the road the transition curves were put on on the 19th of September, when you made this map?
A. I don't know it.
Q. You don't know of any other part?
A. I don't know.

Adjourned until Wednesday, March 31st, 1897, at 10 o'clock a. m.

Testimony for the Defense.

At page 113, after the words "testimony for the defense," interpose the following:

The foregoing constitutes all the evidence introduced by and in behalf of plaintiffs in said case-in-chief, except that — the various exhibits referred to, the substance of which is shown by said testimony or stated. The articles of association of plaintiffs are annexed hereto, and the substance of the articles of the two companies, which are consolidated into the said plaintiff, *are* as stated. The maps referred to are hereby, by stipulation, made a part of this case, to be used upon the hearing on motion for new trial or on appeal, or in any other court in which said case may be taken.

On behalf of the defense the defendant called the following witnesses, who gave the following testimony in full as herein stated:

165 Statement of the case by Mr. Brown.

F. S. MATHIS sworn for the defense.

Examined by Mr. BROWN:

Q. Mr. Mathis, where do you live?
A. Salt Lake City, Utah.
Q. What is your business?
A. Mining and civil engineering.
Q. How long have you been engaged in that business?
A. About 16 years.
Q. Are you doing business alone or in partnership with some person?
A. Alone.

Q. Alone, at Salt Lake City?
A. Yes, sir.
Q. Do you know Mr. L. L. Nunn?
A. Yes, sir.
Q. How long have you known him?
A. About 16 years—15 or 16 years.
Q. Did he employ you at one time to do some work in Provo canyon?
A. Yes, sir.
Q. When was it?
A. That was in the fall of 1894.
Q. The fall of 1894—remember the date, or no matter if you don't get it accurate?
A. Well, I don't remember the date when I first met Mr. Nunn in regard to that work, but the first work that I did was on the 5th of October.
166 Q. The 5th of October, what was the purpose for which he said he wanted—what was it he hired you to do?
A. He employed me to make a preliminary survey in Provo canyon.
Q. A preliminary survey of what?
A. Well, the object was to determine the fall of a certain portion of the river.
Q. A preliminary survey of the water?
A. Yes, sir.
Q. The fall of the water of the river?
A. The fall of the water.
Q. And for the purpose of determining what?
A. For the purpose of determining the fall of the river between certain points and the approximate length of a ditch or flume to convey water to the lower point, with the object in view of establishing a power plant.
Q. Did you do it?
A. I did; yes, sir.
Q. Make a map of that?
A. Yes, sir.
Q. Showing the exact fall; how far up did you go?
A. I went about a mile above the county bridge—the upper end.

The COURT: You mean the bridge at the falls, there?

Mr. BROWN: The Bridle falls?
A. The bridge near Bridle Veil falls; yes, sir.
Q. You went a mile above that?
A. About a mile above that.
Q. From the mouth to about a mile above that.
A. Yes, sir; from the head of the Big Bench canal to a point about a mile above the bridge.
Q. And you made that report on the map, showing the fall?
A. I made the map, and then I made a written report also.
Q. To Mr. Nunn?
A. Yes, sir.

Q. While you were there did Mr. Nunn come there?
A. Mr. P. M. Nunn and Mr. Cramer came there while I was at work.
Q. Oh, P. M., his brother?
A. Yes, sir.
Q. Came there while you were at work?
A. Yes, sir.
167 Q. Do you know whether Mr. Cramer remained there after you were gone?
A. I do not.
Q. Was he there when you left?
A. Yes; he was in Provo when I left there.
Q. He was up the canyon when you left. Do you remember the locality known as the Hanging rock?
A. Yes, sir.
Q. Won't you describe that place?
A. Well, I could not give a very good description of it.
Q. Very well, I will *moit* that and ask it of another witness. Won't you give me the relative fall below and above Hanging rock, if you can?
A. No; I could not do that.
Q. You could do that by looking at that map, I suppose.
A. I doubt if the Hanging rock is noted on that map. I could give you the fall from the head of my transit line to a point near the bridge, and from a point near the bridge to the head of the Big Bench canal, as determined by my map.
Q. We will prove it by another witness, where the Hanging rock is. I was going to show him that map and introduce it, but will do that later on. That is all for the present.

Cross-examination.

By Mr. WEDGWOOD:

Q. Mr. Mathis, have you got that map?
A. No, sir.

Mr. BROWN: I have sent for it. It is over at the office. I supposed it was here.

Mr. WEDGWOOD:

Q. At that time did you post any notice, Mr. Mathis?
A. I think the notice was posted before that.
Q. You didn't do it? Did you do it?
A. No; I think not.
Q. Did you see the notice?
A. Yes, sir.
Q. Did you make your survey—do your work in accordance with that notice?
168 A. I did not take that notice as a guide in doing my work.
Q. Did you see the notice?

A. I think so; yes, sir.
Q. Know what it contained?
A. Why, I don't know. As I remember it, it was just a general notice of location of water for power purposes and irrigation.
Q. Now, do you know where it was posted?
A. Yes; I think I do.
Q. Did you go above that?
A. Yes, sir.
Q. How much above it?
A. My recollection is about a mile.
Q. About a mile above that notice?
A. Yes, sir.
Q. And how far above the bridge did you go?
A. Well, somewhere about a mile.
Q. Well, give us some natural object, if you can.
A. Well, I could not do, because I started from the head of the Big Bench canal and ran my line up, as I told you, about a mile or something more than that above the county bridge, and in the last half a mile I found the fall was very slight, if I remember rightly, about ten feet, and I stopped there, without any reference to natural objects at the upper end at all.
Q. You say you ran about a mile. How do you fix that?
A. Well, I—my station No. 28, as I remember, was near the bridge.
Q. Near the bridge?
A. Near the bridge, and I think the total length of my transit line above station 28 was about 5,000 feet; that is the way I fix it.
Q. Now, you say you went about a mile above the bridge, and also you went about a mile above where this notice was posted. Where was the notice posted?
A. Well, I could not tell you exactly, but somewhere near the bridge.
Q. Somewhere near the bridge?
A. Yes, sir.
Q. Which do you mean, you went a mile above the notice or a mile above the bridge?
169 A. I mean a mile above my station number 28, which was——
Q. I want to fix it by something in that canyon.
A. (Continuing)—which was near the bridge. I cannot tell you just how far.
Q. Don't remember much about it, do you?
A. Well, yes; I remember the main features.
Q. Well, you made a survey to ascertain the fall of the river?
A. Yes, sir.
Q. And took notes——
A. Yes.
Q. —in your mind of the character of the canyon and of the river?
A. Well, I took notes——

Q. (Interrupting)—of its availability for the purposes which you were there to look after?

A. Yes.

Q. And cannot tell any natural object above the bridge that you went to?

A. I paid no attention to natural objects except that bridge and the Big Bench canal.

Q. Then there was no natural object in the canyon above the bridge that attracted your attention in any way?

A. Yes; there was the Hanging rock I noticed, but I did not connect the Hanging rock with my transit line, as I remember of.

Q. Didn't connect the Hanging rock with your work in any way?

A. No.

Q. Didn't enter into your calculations?

A. My work entirely was preliminary work.

Q. So far as your work was concerned, it didn't enter into it at all, the Hanging rock didn't?

A. Well, I did not connect my transit line.

Q. Oh, just answer my question; you can just as well as not. Read the question, Mr. Reporter.

Question read by reporter.

A. Well, I do not know.

Q. Answer it, yes or no.

A. Well, I should say no.

170 Q. Now, what did you find the fall of the river to be from the point where—from the bridge or from a mile above the bridge down to Provo bench?

The COURT: You mean the Provo Bench canal?

Mr. WEDGWOOD:

Q. Yes. Well, do you recollect?

A. From the upper end?

Q. Just answer my question. We will come to that in a minute. Do you know? Do you recollect without looking at something?

A. No; I do not.

Q. What have you got there in your hand?

A. I have the report that I made to Mr. Nunn at the time.

Q. The original report?

A. Yes, sir.

Q. Let me see it, please.

Mr. BAILEY: If your honor please, the paper that counsel on the other side wants has not been introduced in evidence. I do not see what right he has——

Mr. WEDGWOOD: All right.

Mr. BAILEY: I do not know what it contains.

Mr. HARKNESS: Well, the witness was referring to it.

Question read by reporter.

Mr. WEDGWOOD:

Q. What was it?

A. From the upper end of my transit line, which was about a mile above the bridge, to the head of the Big Bench canal I found was 347 and a fraction feet; 342 and a fraction. It is about 343 feet.

Q. Now, I think you answered me that you did not recollect what the fall was.

A. Without my notes; yes, sir; I did.

Q. You do now?

A. I do now; yes, sir.

Q. Well, did you? You answered me you did not a few minutes ago.

A. You asked me if I remembered it without reference to anything.

Q. Well?

A. I answered no.

Q. Since that time have you refreshed your recollection?

171 A. Yes, sir.

Q. What by?

A. By my notes contained in the report that I made to Mr. Nunn at the time—after the completion of this work.

Q. Have you got that with you?

A. Yes, sir.

Q. Did you make that yourself?

A. Which?

Q. That report?

A. Yes, sir.

Q. Yourself, or did you dictate it to somebody?

A. I made it myself.

Q. Got it with you?

A. Yes, sir.

Q. Is that what you testified from when you said that the fall was 340 something feet?

A. Yes, sir.

Q. Let's look at it. Mr. Mathis, where do you say you started with your survey?

A. At this end, at the head of the Big Bench canal.

Q. Do you know how far that is from the mouth of the canyon?

A. Not exactly; no, sir.

Q. Is it near?

A. Yes, sir.

Q. Now, what was the total length of the survey you made from there?

A. Well, that I could not tell you offhand without consulting that.

Q. Can you tell by looking at that memorandum?

A. Yes, sir.

Q. Just look at it.

A. The total length of the transit line from the head of the Big

Bench canal to the farthest point up the canyon to which I ran was 24,358 feet. One of the tangent——

Q. (Interrupting.) 24,358 feet. How far above the bridge?

A. About a mile.

Q. Well, have you got it there?

A. I haven't got the exact connection between the bridge and my transit line; no, sir.

Q. Do you know where the station that you speak of there, near the bridge, is?

A. Not exactly.

Mr. BROWN: He could probably answer it from this map, Mr. Wedgwood.

172 Mr. WEDGWOOD: Just a moment.

Q. Now, which side of the river did you make this survey?

A. On the north side, above the bridge; on the south side, below the bridge.

Q. Where is Cascade creek?

A. It joins the Provo river just above the county bridge.

Q. Right there?

A. Near there; yes, sir; quite near.

Q. Isn't that where the notice was posted?

A. Somewhere near there.

Q. How near?

A. Well, I could not tell you; but a short distance from there.

Q. Was any name attached to that notice?

A. I think so.

Q. Remember whose it was?

A. No; I do not. I am sure that it was signed, but I don't remember by whom.

Q. Would you recognize a copy of that notice, Mr. Mathis?

A. I could not swear to it; no, sir.

Q. You could not swear to it?

A. No, sir.

Q. Would you remember the name which was signed to that notice if it was suggested to you?

Mr. BROWN: I do not think that is material, may it please the court. This man wasn't asked about any notice, or, I mean it is not cross-examination. I didn't ask him about the notice; simply asked him about the fall of the water in the river.

Mr. WEDGWOOD: Well, we don't care to press it.

The COURT: Let it go by for a while; let it be strictly cross-examination.

Mr. WEDGWOOD:

Q. (Exhibiting map to witness.) Is this the map that you made?

A. Yes, sir.

Q. That is the one you referred to in your direct examination?

A. Yes, sir.

Q. Which way is upstream?

Mr. BROWN: I wish to offer that in evidence and you can examine.

173 Mr. WEDGWOOD: No objection.

A. Here is the head of the Big Bench canal; here is the true magnetic.

(Map marked "Def'ts' Ex. 1, D. H. R.")

Q. Now, Mr. Mathis, take that map there with the figures and country located by it. Can you tell by that where that survey ends with reference to the Hanging rock?

A. I cannot; no, sir.

Q. Is it above or below the Hanging rock?

A. The upper end of the survey?

Q. Yes, sir.

A. I think it is below.

Q. What mapes you think so?

A. Well, because I have a very distinct recollection of the Hanging rock, but, as I have already testified, I did not connect the Hanging rock. I do not remember to have connected the Hanging rock with any station on my transit line.

Q. Do you know how far the Hanging rock is above the bridge?

A. No; I do not.

Q. And don't know where it is, as a matter of fact, do you, with reference to the end of your survey?

A. Not exactly; but I am quite sure——

Q. Never mind what you are quite sure of. Have you any knowledge as to where it is with reference to the end of your survey?

A. No exact knowledge; no, sir.

Q. Now, taking that map there, tell us how far above that bridge you went.

A. My station 28 is near the south end of the county bridge.

Q. Yes.

A. And the distance from that point to the upper end of my transit line, in a direct line, was something over 4,900 feet in a straight line.

Q. Something over 4,900 feet?

A. No; that is wrong. Wait a minute.

Mr. BROWN: Haven't you got a rule there that you can put it on and tell?

174 Mr. WEDGWOOD:

Q. I ask you by your map, not what you wrote down.

A. Well, I can take it by schedule, but the courses and distances are not put on that map.

Q. Is there anything on that map to show; is there any schedule marked on there?

A. Yes, sir; it is made on a schedule of 400 feet to the inch.

Q. Where does it say so?

A. Right here. Now, I wish to correct that.

Mr. BROWN: If you will just use your schedule and your map as he asks you to.

Mr. WEDGWOOD: Just throw away that letter and I will ask you about the map.

A. Well, I have already made an incorrect statement of a distance there that I would like to correct.

Q. Well, you may correct it at the proper time; answer the question about the map.

A. Very well; it is about 4,400 feet from my station 28, which is near the south end of the bridge to the upper, the highest station on my transit line.

Q. Now, how far is it up to Hanging rock from the upper end of the bridge?

A. I cannot tell you.

Q. Did you go up to Hanging rock at all?

A. Yes; I went past it.

Q. When?

A. When I made this survey.

Q. Did you make any survey passed it?

A. I think so.

Q. Did you?

A. I think so.

Q. Well, do you know whether you did or not?

A. My best recollection——

Q. Just answer my question: Did you make a survey passed there?

Mr. BROWN: I submit he has answer- the question.

Mr. WEDGWOOD:

Q. What kind of a survey did you make up there?

A. I made a preliminary survey.

175 Q. How; what did you do?

A. With both transit and levels. I ran a line of levels from the head of the Big Bench canal to my uppermost transit-line station.

Q. That is shown on that map, isn't it?

A. The stations are all shown on that map; yes, sir.

Q. Did you make any survey above that map?

A. No, sir.

Q. That is the question I asked you before, and you don't know, as a matter of fact, where the Hanging rock is, do you?

A. Not exactly.

Q. Which side of the river is it on?

A. My recollection is that it is on the south side of the river.

Q. That is your recollection?

A. Yes, sir.

F. J. CRAMER sworn for the defense.

Examined by Mr. BROWN:

Q. Mr. Cramer, what is your given name?
A. F. J. Cramer, Ferdinand J. Cramer.
Q. Where do you live?
A. Denver.
Q. What business are you engaged in?
A. Civil and mining engineering.
Q. How long have you been engaged in the business of civil engineering?
A. Twenty-two years.
Q. Had you taken a course of study of engineering prior to that?
A. Yes, sir.
Q. Whereabouts?
A. Cornell University.
Q. What class of engineering have you been engaged in these 22 years?
A. Chiefly in mining engineering, and with this power plant business since 1890.
Q. The power plant business since 1890. Did you ever go up with Mr.—with either of the Mr. Nunns—up the Provo
176 canyon, with a view of doing some work there?
A. Yes, sir; I went up with Mr. P. M. Nunn in 1894—October.
Q. 1894. What did you go up there to do?
A. To examine the opportunities or chances of getting water power on the Provo river.
Q. Find anybody up there?
A. Yes, sir; Mr. Mathis.
Q. Mr. Mathis was there. In whose employ were you when you went up there?
A. L. L. Nunn's.
Q. Did you remain after Mr. Mathis went away?
A. Yes, sir.
Q. What did you do?
A. I ran over the level line, to check it, and then examined what data I could get—records of the flow of water all the year round on the Provo river.
Q. In examining the data that you could get as to the flow of water—that was, inquiring of other people about it?
A. Yes, sir.
Q. That involved that also; and anything else besides talking with people?
A. I made a report to Mr. Nunn upon the——
Q. (Interrupting.) Did you examine any other reports, any former reports—Government reports—on the flow of water?
A. Yes, sir.
Q. You examined into that question?
A. Yes, sir.

Q. Did you look up the flow of water further up the stream than Mr. Mathis had?

A. Yes, sir; I was examining the water all along the river, to see what chances there were of getting the water out and the best way of utilizing it for power.

Q. How far up the river did you go that fall?

A. Why, that trip, I went up as high as the flat below Charleston, just before getting upon that hill on this side of Deer creek.

Q. Did you run levels as high as that?

A. No, sir; I did not run any levels up as far as that.

177 Q. Did you check over Mathis' levels?

A. Yes, sir.

Q. How long did you remain on that occasion?

A. About two weeks.

Q. Did you do any work on the grounds besides making this map and report?

A. I had Mr. Thayer; he was working there. I told him some things that I wanted cleared away, and he had been working before that.

Q. What do you mean by cleared away, brush?

A. I mean clearing away brush.

Q. Told him you wanted some brush cleared away?

A. Yes, sir.

Q. That is the only work you done on the ground?

A. Yes, sir.

Q. The rest of your time you put in making preliminary surveys and observations?

A. Yes, sir.

Q. Have any assistant with you there?

A. Mr. Nunn was with me in the beginning, and I consulted with him regarding some points on that; but otherwise I had no assistants. I had some men doing the work, but no engineering assistants.

Q. But you had your men to work?

A. Yes, sir.

Q. How many did you have?

A. Two.

Q. Two men helping you with the instrument, and you stayed there about two weeks?

A. Yes, sir.

Q. In this preliminary observation—when did you go again?

A. In May, 1895.

Q. You did not remain there any longer in the fall of 1894?

A. No, sir.

Q. But in May, 1895, you came again?

A. Yes, sir.

Q. How long did you remain that time?

A. About a week, I should judge.

Q. What was the nature of your work there during that week?

A. I was examining with a view of getting a small power—that

is, a small fall for power purposes—that was to be used in
178 excavating for a big ditch and a dam above, higher up.

Q. Just explain that, why was it necessary to have two powers, a small one and a big one?

A. Well, the object of the small one——

Q. The desirability to have it?

A. Well, the object of the small one was that we need the power to do the big work, and by having a small ditch dug below we could utilize the small power then.

Q. And in that trip you decided upon the place for the small power?

A. Yes, sir.

Q. And what was the place you decided upon?

A. It was practically the same place. There is a small creek runs down from the Alta ditch. It was in that neighborhood that we have it. We could get all the fall that was needed.

Q. The Alta ditch?

A. Yes, sir; there is a small creek running down from that; that is where I thought we could get the power.

Q. Did you designate it on the map of Mr. Mathis?

A. I do not think I did.

Q. Did you designate it on any map of your own? Can you designate it by anything, any natural object in the river or connected with the river, or on the side of the canyon?

A. I should judge it was about a half a mile below—no, not quite that much—it was pretty close to a half a mile below the bridge.

Q. Below the bridge?

A. Yes. If I understand you, my object was to put the power plant at that place; that is what I understood your question.

Q. My question is that if at that time, May, 1895, you decided upon the place to put——

A. The power plant, you mean?

Q. Yes—I don't mean that. Did you decide upon a place to take out the water for the little power plant?

179 A. Well, it was fixed by that; it was a short distance above the bridge; I should judge about a thousand feet or so.

Q. Where you was going to take the water out of the river?

A. Yes, sir.

Q. For the purpose of starting this little power plant to operate your big one?

A. Yes.

Q. About a thousand feet above the bridge?

A. I should judge that.

Q. Was there any natural object there to locate the locality?

A. I do not think of any.

Q. Or is there any?

A. I do not think of any.

Q. Is there now any artificial object, anything on the ground, indicating the point that you selected in May, 1895?

A. There had been stakes there, but I don't know whether they are there now.

Q. Don't know? You don't know of any artificial or natural object indicating it?

A. No, I cannot say that I do.

Q. Was it the same point that you have since worked upon with a view to taking water out?

A. Yes, sir.

Q. The little one?

A. No, sir; it wasn't.

Q. Was it above or below?

A. It was below that.

Q. How far below that you now design for that purpose?

A. I should judge about three-quarters of a mile.

Q. That is, three-quarters of a mile below the head of where your present flume is?

A. Yes, sir.

Q. Was this map made under your direction?

A. Yes, sir.

Q. Can you tell on that map where it was that you decided to take out the water for your little power, in May, 1895?

A. It was very close to this; my impression is it was about that (indicating).

The COURT: Indicate it, Mr. Brown.

180 Mr. BROWN:

Q. It was about there (indicating)?

A. Yes, sir.

Mr. HARKNESS: I would like to have it marked on the map.

Mr. BROWN: Yes; mark it "A."

Q. You stayed there about a week?

A. Yes, sir.

Mr. HARKNESS: It is the place marked "A" on the map, Mr. Reporter.

Mr. BROWN:

Q. Did you do anything else besides fix on that point?

A. I had Mr. Thayer clear out some of the brush again on the line of that.

Q. When did you come again?

A. In October—5th.

Q. October 5th, 1895?

A. Yes, sir.

Q. How long did you remain at that time?

A. I remained a little bit over a month, and I was called home by the illness of my daughter.

Q. Just remained a month; now, what did you do during that month?

A. I neg you- pardon.

Q. What did you do during the fall of 1895, October, 1895?

A. I had Mr. Suhr—I had Mr. Suhr run a line on what is now

called the "Suhr line," which is about sixty feet above the level of the river, at what we call the Big rock in the river or the Mid rock, something like that.

Q. Sixty feet above the level of the river at Middle rock?

A. Yes, sir.

Q. You helped him run out a preliminary line of it?

A. Yes, sir; I selected the point and Mr. Suhr was using the instrument.

Q. Anything else?

A. I also ran some other lines lower down to the mouth of the canyon on both sides of the river.

Q. What for?

A. To determine as to the fall that we could get and the character of country that we would have to go through with our canal.

181 Q. Speak a little louder.

A. Well, I ran lines for the purpose of determining the kind of country we would have to go through with our canal and also the amount of fall we would get at the mouth of the canyon.

Q. Did you do anything at that time as to changing the locality where you would take the water out of the river for your temporary power?

A. Do I understand that to mean that whether I had changed that special point?

Q. Dod you do anything as to fixing any other place than the one that you had?

A. Yes, sir.

Q. Where you would take the water out of the river?

A. We expected to take it out close by the Hanging rock.

Mr. HARKNESS: I think that is objectionable; the question was, did he do anything.

Mr. BROWN:

Q. Well, did you decide upon any other point?

A. Yes, sir.

Q. Where was the other point?

A. It was near the Hanging rock.

Q. Where you intended to take out your little power?

A. No; that was lower down; I didn't understand you.

Q. Did you in the fall, October, 1895, decide upon any place where you would take water out of the river for your minor power, your little power?

A. Yes, sir.

Q. You did do that?

A. Yes, sir.

Q. Where was that place?

A. About 1,500 feet or so above the bridge.

Q. With reference to the head of your present flume, where was it?

A. About three-quarters of a mile below it.

Q. When did you fix on the place where the head of your present flume is, the place for taking out the present flume?

182 A. The present flume—it was some time in February, 1896.

Q. You did not change it, then, in October, 1895?

A. No, sir.

Q. But at that time, in October, 1895, you ran the sixty-foot level?

A. Yes, sir.

Q. Any work done on the sixty-foot level at that time?

A. Yes, sir. We graded it out for about a half a mile for the flume bed.

Mr. WEDGWOOD:

Q. I didn't understand that, Mr. Cramer.

A. We graded for a flume bed for about a half a mile.

Mr. BROWN:

Q. On the sixty-foot level?

A. On the sixty-foot level that I originally worked on in 1894 for this Suhr line.

Q. You call that the Suhr line, do you?

A. Yes, sir.

Q. And what was that level designed to be for?

A. It was for the purpose of putting a flume upon it for carrying water to the mouth of the canyon for power purposes.

Q. State whether that is your main level or not—principal level.

A. That is the principal level.

Q. Of the permanent or temporary, which?

A. The permanent.

Q. And when did you go again?

A. In November of 1895.

Q. November, 1895; and how long did you remain at that time?

A. I remained until the month of January, 1896.

Q. What did you do at that time?

A. We were perfecting the plan of and making calculations on a canal for the temporary purposes on the level that I pointed out a little while ago, and also fixing our preparations, so that we could let contracts to excavate. I was doing that until the latter part of December.

Q. What was you doing from December to January?

A. I visited Mercur and Tintic, going on this side up towards Mercur, and then going on the lower side of the lake to Tintic,

183 for the purpose of seeing and examining as to the feasibility of running power lines over that country.

Q. Did you discover whether it was feasible or not?

A. Did I what?

Q. What was your opinion whether it was feasible or not?

A. It was perfectly feasible.

Q. Did you at any time also go to Park City for that purpose?

A. No, sir.

Q. Well, we come down to January, 1896; when did you come again?

A. February 14th, 1896.
Q. February 14th, 1896; how long did you stay at that time?
A. I stayed until the beginning of December.
Q. All summer?
A. Yes, sir.
Q. Spring and summer?
A. Yes, sir.
Q. Well, now—first in the spring—what was the first thing you did?
A. We were up at the canyon for the purpose of getting bids from contractors.
Q. Bids to do what?
A. And it took us up until about March.
Q. Bids to do what?
A. To excavate the canal that we had laid out there for temporary purposes. That took us up until about March.
Q. Did you at that time change the place of your canal for temporary purposes?
A. I had not up until that time, but after that I changed it, because I proposed to take a flume instead of a canal.
Q. Well, when did you change it is what I want to get at.
A. About the beginning of March.
Q. The beginning of March, 1896?
A. Yes, sir.
Q. Where did you locate it at that time?
184 A. At the point it is at present, at a point right opposite or practically opposite the big rock in the river.
Q. Middle rock?
A. Yes, sir.
Q. Practically opposite Middle rock in the river?
A. Yes, sir.
Q. How far is that above or below Hanging rock?
A. About a thousand feet below Hanging rock.
Q. What artificial appearance is there now on the ground to indicate the place?
A. You mean at the flume that we started?
Q. I mean anything that you have got there on the ground.
A. We have got a flume built there.
Q. Got a flume up to the point where you are going to take the water out?
A. Yes, sir; that is, within two or three feet; we have got the headgates—just the space to put them in.
Q. That is to connect with the dam you are going to build; how much flume have you got there?
A. Two thousand feet.
Q. Just describe the flume.
A. It is a half-circle flume, six feet six inches in diameter, made of staves six inches and eight inches and ten inches wide, with round steel bands every two feet six inches, the flume setting in chairs every 12 feet, 12 feet apart. It will have a depth of water five feet three inches. I believe that is about it.

Q. About how expensive a structure, if you know; I want to know how expensive a structure?

A. I am not aware of that.

Q. Well, no matter; and there is a place where you was going to take that out you decided upon in February, 1896?

A. I should judge about March, 1896?

Q. About March, 1896?

A. The first of March.

Q. Well, after fixing on that place what next did you do?

185 A. I immediately began surveying for the line of this flume bed, and continued that until we had it completed for four thousand feet.

Q. When was that survey completed?

A. I should judge about—well, something around the 20th of March, I think.

Q. During that time, up to the 20th of March, what other work was being done there, if any?

A. I also began running a level line for a reservoir above the Hanging rock.

Q. Yes; when did you begin that work for the reservoir above Hanging rock?

A. I began that just as soon as I could spare the men from the work on the flume bed, and that occurred some time in the latter part of March.

Q. How many men did you have there at work at that time when you started to run the reservoir line above Hanging rock?

A. In the original corps I had about—let's see—I had seven men.

Q. Is that all the men that were up there to work?

A. No, sir; there was about fifty there.

Q. How many men were there in all to work?

A. There was about fifty men.

Q. About fifty men at the time you commenced the survey of the outside line of the reservoir?

A. Yes, sir.

Q. About how high were the outside lines of that reservoir plane?

A. The first one I ran was about sixty feet high, and after I had run that Mr. Nunn instructed me to run it 85.

Q. Did he state the purposes?

A. He says we have got to have a reservoir for the purpose of raising the water.

Q. Did he state where the reservoir was to begin, where the dam was to be placed?

A. Right a- the Hanging rock.

Q. At the Hanging rock, and you commenced to run it on the 85-foot level?

A. Yes, sir.

186 Q. From the Hanging rock, at the point of the dam?

A. Yes, sir.

Q. And you began the 60-foot level the latter part of March; when did you begin the 85-foot level?

A. Somewhere in April; my impression is, it is in the fore part of April.

Q. Did you do it directly—was you the engineer or did you have somebody under you?

A. I just simply directed it as engineer.

Q. Who was assisting?

A. Mr. Searle.

Q. Do you remember at any time in the spring of 1896 seeing or knowing of Mr. Searle setting a stake at Hanging rock, connected with this reservoir?

A. Yes, sir; he set a stake there somewhere in April, stating that that was the water line of the Provo Canyon reservoir.

Q. Where was the stake stuck?

A. That one was right above, on the Hanging rock.

Q. On the Hanging rock?

A. Yes, sir.

Q. When you speak of Hanging rock, which do you mean, the one on the north or south side?

A. It was on both sides.

Q. Now, where was the stake stuck?

A. It was on both sides.

Q. This one that said, "This is the reservoir level," which side was that on?

A. That was on the north side and south side.

Q. You put stakes on both of them?

A. Yes, sir.

Q. What was the appearance of that rock or the two Hanging rocks there? Describe it.

A. They are two abutments, you might call them, because they come directly out from the side hill and strike almost perpendicularly. It is composed of very hard limestone rock, as solid as anything can be.

Q. State whether their presence there would be of assistance in building a dam.

187 A. Of the greatest assistance. They would make the finest kind of abutments that you could possibly get.

Q. Do you know when it was decided to fix the dam for a permanent power at that point?

A. Yes, sir.

Q. When was it?

A. Some time in April, the beginning of April.

Q. The beginning of April, 1896; before that had there been any place fixed for a reservoir?

A. A reservoir had always—my idea was there, that just a short distance below the grade from what we call the Mid rock in the river up to the abutment is very slight, and a dam at that point or at the abutment would give us practically no difference at all; my idea at first, before we had cleared the point so as to make it clear

you could get around that, was for a power—was to put it a little lower down.

Q. Would it make any practical different for the amount of land submerged by the reservoir, whether the dam was at the abutments of the Hanging rock or below?

A. Not at all, excepting what was below, but otherwise it would make no difference at all.

Q. Yes, and that would be a distance clear up to Charleston?

A. Yes; it would make no difference with that.

Q. Do you know when it was decided to put a dam in the vicinity of either of those places, a permanent dam for a permanent power?

A. Well, I should say that it was determined upon in 1895 that we would have the dam there somewhere.

Q. And the exact locality was either at Hanging rock or at Middle rock?

A. Yes, sir.

Q. And as between the two it was definitely settled in April?

A. Yes, sir.

Q. 1896. Who else was aiding you as engineer or working there as engineer in the spring of 1896?

188 A. Mr. Sterling was aiding me, and Mr. Buckler also.

Q. Mr. Madden come there some time?

A. Yes, sir.

Q. When did he come?

A. He come in April; I think April 6th; I am not sure whether it was April 6th or March 6th.

Q. After the time when you set Searle to running this line for the reservoir what next did you do?

A. I of course looked after the work that he was doing right along.

Mr. WEDGWOOD:

Q. I little bit louder, Mr. Cramer.

A. I was looking after the work that he was doing right along, and we continued on with the work that was going on, with the flume that was going ahead right at the same time that the reservoir above was being surveyed.

Mr. BROWN:

Q. Well, now, generally through the summer what other work did you do?

A. We kept at work on the survey until June, when we finished that; then we calculated—it took us *us* nearly all of June from the time we had finished the survey to make the calculations for a map of the reservoir site, and in July Mr. Searle and Mr. Madden both went away and I took charge of all the work up there, and I worked the men considerably on the 60-feet level.

Q. Doing what?

A. On the 60 foot.

Q. Doing what on the 60 level?

A. On the 60-foot Suhr line they continued that. There had been work done there before.
Q. What were they doing there?
A. Grading for a flume.
Q. All right.
A. And I also was working men on the dam site, clearing off the abutments on both sides so as to determine the exact quality we had there, and sinking shafts, etc., on there so as to determine regarding the dam site itself.
Q. What shafts did you sink?
A. I sunk one. I tried to sink one lower than Mr. Madden had sunk it already and I sunk another one in a—not right
189 directly between the two lines, but a little bit more to the left.
Q. What time that summer did you say you left?
A. That happened the first part of July.
Q. What time did you leave; in November?
A. What?
Q. When did you leave; did you stay up all summer of 1896?
A. Yes.
Q. When did you quit there, if at all, or have you ever quit since?
A. I quit there in November.
Q. In November. And what condition was the work in in November when you left?
A. Why, we had the flume made; we had the bed extended about four thousand feet; we had about 5,000 feet of flume on—I mean of flume bed—on the 60-foot grade, and I had done considerable work on both the abutments, and also between the abutments.
Q. I want to go back and ask you: You say that Searle got through on the 6th of June staking the reservoir line out?
A. Yes, sir.
Q. Won't you describe that staking?
A. We put a post, two by fours, at every angle made in the survey, and each one of the stakes was marked "Water line, Provo Canyon reservoir."
Q. How easily could it be seen by a traveller up and down the road?
A. Well, there would be hardly any possibility of not noticing it.
Q. How far up did the stakes go beyond Hanging rock?
A. A little over—I think it was about five miles and a half.
Q. Five miles and a half above. I wanted to ask you one thing further about this extra height above the 60-foot level of the dam: Why it is to be 25 feet higher than the 60-foot level.
A. In order to give us a supply of water during the seasons of low water, so that we could always furnish the same amount of power the year round. You know it is the minimum power
190 that you can furnish that would determine during all the year round as to what you can sell, and by having a supply of water there at the low season we could furnish a very much higher amount of power all the year round.

Q. What is the low season of the Provo river?

A. The low season begins generally—in February there is a season, and then in the latter part of July, and also of August.

Q. And this extra bulk of water in the reservoir all over 60 feet is to supply the deficiency?

A. Yes, sir.

Q. That there would be in these low seasons?

A. Yes, sir.

Q. So that the power would be continuous the year round?

A. Yes, sir.

Q. That is the object. Could this reservoir be used also for any other purposes besides power purposes?

A. It could be used for irrigating purposes also.

Q. Would that use for irrigating purposes interfere with its use for power purposes?

A. Not in the slightest.

Q. And would the use of the water for power interfere with the prior rights of irrigation below?

A. Not at all.

Q. Nor with the use of the waters for irrigation purposes?

A. Not in the least would it interfere with it.

Q. Now, Mr. Cramer, when you were at work in 1896 did you see any employees of the railroad company?

A. Yes, sir.

Q. When first?

A. About the fore part of April.

Q. The fore part of April? State whether when they first came there Searle had already put up the stakes of the 85-foot level on Hanging rock.

A. Yes, sir.

Q. He had put them up before them came there?

A. Yes, sir.

Q. What did they do when they first came there?

191 A. They were running lines through there.

Q. On which side of the river?

A. On the north side.

Q. Did you explain to the men or any man in charge of their men what you were doing there?

A. I do not know anything that I positively stated, but I know they knew it in this general way that a person knows what is generally going on.

Q. Well, I want to know particularly whether you had any talk or heard any talk with any of the men in charge.

A. No; I cannot say that I did.

Q. Of course, you were working openly, and they could see what you were doing?

A. There was nothing secret about it at all.

Q. Who was in charge of those men?

A. Mr. Baxter, I think.

Q. And was Mr. Collier there also?

A. Yes, sir.

Q. Was he in charge?

A. I think so. Mr. Baxter wasn't there all the time, my impression is.

Q. Mr. Baxter wasn't there all the time and Mr. Collier was in charge part of the time?

A. Yes, sir; I think so.

Q. When they came there how many men did you have employed?

A. There were about fifty of our men on the grounds at that time.

Q. Fifty men on the ground? You were then working in operation with at least fifty men on the ground when they first came up there?

A. Yes, sir.

Q. How many men did they bring up there when they first came?

A. I think about six or seven men; the regular engineering corps.

Q. Did they at any time increase that force?

A. No, sir; not as I know of.

Q. When they commenced to grading—did they do any grading up there?

A. Yes, sir.

Q. Did they increase the force for grading?

A. Yes, sir.

Q. How much?

A. Well, I saw one day about four teams there; I don't know how many men, because I did not count them; did not pay
192 much attention to it.

Q. When was it the grading force came up?

A. I should say about some time about the fore part of June.

Q. Did they do anything?

A. They did some grading in small blocks along the river, on the north side.

Q. How much grading did they do?

A. Oh, I should judge about three patches of about—one of them about 300 feet long, and others that were shorter yet.

Q. What kind of work was it?

A. It was soft; it was dirt that they were working at.

Q. Not rock excavation?

A. No, sir.

Q. How was it done; what with?

A. It was generally done with shovel.

Q. Any horses, plows, and scrapers?

A. Horses, plow, and scrapers.

Q. Anything else?

A. That is all they were doing it with.

Q. Do you know when they commenced surveying across the river?

The COURT: You mean by that on the south side?

Q. Mr. BROWN: Yes.

A. My impression is that it was after that or about that time.

Q. What I want to know particularly is whether you can tell us whether the stakes around the reservoir had been completed, clear around it, at the time they began surveying on the south side of the river.

A. Yes, sir; they were completed at that time.

Q. You don't know the exact date they commenced surveying there?

A. I could not say exactly.

Q. You — acquainted with the value or expense of railroad grading?

A. Well, nothing special. I know just merely from what I know it would generally cost to do such thing, to do ordinary work. I have never done any special railroad engineering.

Q. Could you give us an estimate of the value of all the
193 railroad grading they did there, the expense of it?

A. I think it could be done for three or four hundred dollars.

Q. You are acquainted with the value of engineering work, I suppose?

A. Yes, sir.

Q. What would you say was the value of running a line, the expense of running a line for a railroad from Provo twenty miles up to Charleston, correcting it and fixing it?

A. I should judge about nine hundred to a thousand dollars.

Q. Supposing you were running two lines—one on the north side and one on the south side of the river?

A. Well, the estimate of them would be, I suppose, about three-quarters more, I should judge; about fifteen hundred to $1,800.

Q. Since this suit was brought, in September, has the work been progressing for this dam?

A. Yes, sir.

Q. To what extent?

A. Since——

Q. Since September? This suit was brought about the 18th, I think; about the middle of September.

A. Well, I was working between the dam sites. I had about——

Mr. THURMAN: Wait a moment. We object to this as immaterial.

Mr. BROWN: We can show we had not abandoned our right. If we did not have a right when this suit was commenced, we cannot make it afterwards, neither can the other side.

The COURT: It will show the intent of the parties. I think that should be permitted by both parties in a case of this kind. Answer the question. Take an exception.

Exception taken.

Mr. BROWN:

Q. Has the work been progressing?

A. Yes, sir; all the time.

Q. Can work be done on this dam in the winter season up there?
A. Well, it will depend a good deal upon when he was there; of course, you can do something, but not regular work.
194 Q. Up to the time of the commencement or up to the time, say, the middle of September, what would you say was the entire expense—value—laid out in work, making necessary maps and everything toward this power-dam business?
A. I should judge that we had put out at that time——
Q. Including all the lines and surveys and the necessary steps to be taken, preliminary surveys and such things required—the whole thing?
A. Between forty and fifty thousand dollars; that was up there. I understand also that there has been some work that I don't know anything about at Telluride. I could not say anything about that.
Q. You have examined the river, I suppose, have you?
A. Yes, sir.
Q. With a view of seeing how much power could be obtained from this dam and the canal?
A. Yes, sir.
Q. What is the amount in horse-power that in your judgment could be procured?
A. I should judge about ten-thousand-horse power.
Q. Ten thousand; that is right, is it?
A. Yes, sir.
Q. Have you examined to see whether that amount of horse-power could be utilized within reasonable distance?
A. I don't think there is any question about that. I was, of course, going to Mercur and to Tintic and those places to see what chances there was of disposing of power. I did not ask any question, but I saw there was enough power used there, and I know we could always sell power——

Mr. WEDGWOOD (interrupting): We move to strike that out as not responsive.
The COURT: Let it go out as not responsive.

Mr. BROWN:

Q. I simply ask you if there was use for that amount of
195 power within reasonable distance.
A. Yes, sir.
Q. And at what places?
A. At Mercur, at Tintic, and at Park City.
Q. How about Salt Lake City. Is that within reasonable distance?
A. And also to Salt Lake City.
Q. Something has been stated here at one time that you were stopping a gang of graders when they were on the north side?
A. Yes, sir; I did.
Q. Now, in a general way just state what they were doing when you stopped them.

A. They had plowed up the ground, and they were scraping it so as to turn the river, and right on the dam site, and I walked up there and told 'em that they had to stop.

Q. How many of them were there?

A. Six.

Q. Did you use any violence on them?

A. No, sir.

Q. Was you alone?

A. Yes, sir.

The COURT: I think the evidence was, Mr. Brown, that he only shooed them.

Mr. BROWN:

Q. Yes; I thought I would show there was nobody badly hurt. Was the work they were doing injurious to your operations?

A. Yes, sir; I was afraid it would be.

Q. You was afraid it would be and you objected to its being done for that reason?

A. Yes, sir.

Q. It was also stated that in September, I think about September 9th, you stopped some work on the south side near the rock at that place?

A. Yes, sir.

Q. And below the Hanging rock, on that side?

A. Yes, sir.

Q. What was there of that? I don't care anything about the details of what you said.

A. Well, I went up there and told them that they had to stop, and they refused to do it, and after talking with——

Q. No—well, go on.

196 A. —and after talking with Mr. Norris a while I went down town and telephoned to Judge King, and he came down on the next train, and we went up there, and after that I did not pay much attention to what he was saying, and they stopped.

Q. Well, I don't care about what he was saying. What I want to know especially is what work they were doing and what injury would have resulted.

A. Well, they were working right below the Hanging rock, and I was afraid——

Mr. WEDGWOOD: Hold on. I object to it as immaterial.

Mr. BROWN: His opinion of the injury of the work they were about to do; I want you to explain that.

Mr. WEDGWOOD: Well, we object to it.

A. I was afraid they were going to blow off the Hanging rock.

Mr. WEDGWOOD: We object to that.

The COURT: Now, Mr. Brown, formulate your question.

Mr. BROWN:

Q. What work—what injury did you apprehend would be accomplished by that?

Mr. WEDGWOOD: Now, we object to it as immaterial and irrelevant.

The COURT: Yes, Mr. Brown, indicate what was being done.

Mr. BROWN:

Q. What did the work that they were doing indicate to your operations?

A. It indicated they were going to destroy one of the abutments.

Q. Did that indicate injury to your operations?

A. Most assuredly. If you have a good abutment you don't want to destroy it.

Q. Did Mr. Nunn visit this work from time to time?

A. Yes, sir.

Q. How often during the summer of 1896 or spring of 1896?

A. Oh, I should judge, about a half a dozen times.

Q. In the fall of 1895, was he there?

A. Yes, sir.

Q. How long have you known Mr. Nunn?

A. Fifteen years.

197 Q. Do you know whether he is an American citizen or not, a citizen of the United States?

A. Yes, sir.

Q. Where does he reside?

A. He resides in Telluride, Colorado.

Q. How long has he lived there?

A. He has lived there, to my certain knowledge, fifteen years.

Q. Citizen of the United States and of the State of Colorado?

A. Yes, sir.

Cross-examination.

By Mr. WEDGWOOD:

Q. How do you know Mr. Nunn is an American citizen, Mr. Cramer?

A. Just the way I know you are speaking English. You speak English; I can't explain the fact; I know that it is so.

Q. How?

A. How is that?

Q. How?

A. I know that you speak English because I think I understand it.

Q. Well, is every man that speaks English an American citizen?

A. Well, I did not say that; at least, I did not mean to say that if I did.

Q. Please answer my question, how you know that Mr. Nunn is an American citizen.

A. In a general way, I could not say that I know when he was

born, but he has acted like an American citizen. He has lived here fifteen years, to my certain knowledge.

Q. Then you don't know, as a matter of fact, that he is an American citizen or not?

A. That depends on exactly what you mean by don't know. I say that I know he is an American citizen.

Q. Well, I want to know how you know that.

A. I know he has always acted like an American citizen.

Q. You don't know that he was born in this country, of
198 your own personal knowledge?

A. Well, I don't know whether I was born in this country, but I am dead sure of it.

Q. Don't know that he was born in this country, do you?

A. I don't know that, but I am quite sure he was born in the State of Ohio, the same State I was.

Mr. WEDGWOOD: We move to strike out his testimony of Mr. Nunn being an American citizen.

Mr. BROWN: Well, I want to examine him on that first.

The COURT: Let it go for the time being.

Mr. WEDGWOOD:

Q. Now, Mr. Cramer, when do you say you first came here to Provo?

A. I beg your pardon; I don't hear what you say.

Q. When do you say you first came to Provo, Mr. Cramer?

A. In October, 1894.

Q. And what did you do?

A. I went up the canyon to examine the Provo river.

Q. And what kind of an examination did you make?

A. I ran a level to check Mr. Mathis' survey, and I examined all the available reports that I could find as to the volume of water, and also examined the size of the canyon with a view of seeing whether it was feasible to run a canal over it.

Q. Now, what line did you run?

A. What line did I run? I ran a check-line of levels.

Q. The same line that Mr. Mathis ran?

A. Well, I could not say; I checked what had been made. The idea was——

Q. No; please answer my question. What do you mean by check?

A. I was told that the difference in height between a certain point that was given there and the place where the water was coming out on to the Provo bench on that side—I have forgotten the name of it——

Q. On the north side; the left-hand side going up?

199 A. Yes; it was the highest water—that it was a certain number of feet between them—and I went to check them to see whether that was so.

Q. Now, did you have the notes with you or just those two given points?

A. Those two given points.
Q. Now, where did the point farthest up the river? Where was it?
A. What point?
Q. The point you started from?
A. I took the point. One of them that was given was a rock that lays right above the bridge—that is the one I considered of importance along there—and then I ran from that practically to the point that we call Hanging rock.
Q. Now, first you started at or near the bridge. Tell just what you did.
A. I started at the point of rock above the bridge and ran a level from there down to the point opposite the head of the Provo Bench canal.
Q. And what did you find the fall to be?
A. 283 feet, to be definite, not taking in the fraction to the hundredths of a foot.
Q. Did you stake it?
A. No stakes at all; no.
Q. Now, then, that would bring the level at how high up on the ridge on the left-hand side of the canyon going up, starting at the point at the bridge?
A. The point I placed there?
Q. Yes. How high would it bring it up on the left-hand side of the canyon?
A. I started, you know, practically on the level with the river.
Q. Yes.
A. You mean the distance up?
Q. Yes.
A. It was right on the bridge.
Q. The distance from there to the mouth of the canyon is what I want to get at.
A. It would be 283 feet.
Q. That is, it would give you 283 feet fall?
A. No; not exactly that, because we would have to have grade for the canal.
200 Q. How much grade for the canal?
A. That would depend entirely upon the size and other things.
Q. Did you establish any grade at that time?
A. No, sir; there was no necessity.
Q. Did you make any map of that?
A. No, sir.
Q. Just simply run it over?
A. Yes, sir.
Q. Then what did you do after that?
A. You mean after I ran that. I ran it up the river to opposite the Mid rock, as we call it. There is a big rock laying in the river.
Q. How far is that above the bridge?
A. About a mile and a half; well, hardly that; barely a short mile and a half.

Q. How far is it with relation to where your present flume joins the river?

A. It is about five or six hundred feet from our present flume.

Q. That is down the river?

A. Yes. Excuse me, the point is above the flume. Our flume starts about 500 feet below it.

Q. And how far from Hanging rock?

A. About a thousand feet.

Q. About a thousand feet?

A. Yes, sir.

Q. Did you make any plat of that?

A. No, sir.

Q. Did you stake it?

—. That is, you mean by staking having the stakes out. Of course, I had some where I made my turning points.

Q. But did you stake it out like a location survey?

A. Why, there was no location wanted; I just merely wanted to know what I was doing.

Q. Now, at that time did you see a notice anywhere?

A. There was a notice somewhere about the—that is, near the bridge, a little higher up on that stream that you call Bridle Veil falls.

201 Q. What Mr. Mathis called Cascade creek?

A. Yes; that is the one.

Q. Did you read it?

A. I read it at the time; yes, sir.

Q. Would you know what it contained?

A. Well, I could not say——

Q. Just answer the question yes or no.

A. I could not say exactly.

Mr. BAILEY: If your honor please, I do not think this witness was examined on any notice. If we want to introduce the notice we will do so at the proper time.

The COURT: He has answered that he has seen it.

Mr. WEDGWOOD: I propose to ask him if he would recognize the name. This witness has gone into what he knew about the canyon, and I want to find out what he knew; as to his credibility.

The COURT: I think within the latitude of cross-examination that it may be answered.

Exception taken.

Question read by reporter.

Mr. WEDGWOOD:

Q. If you saw a copy of it?

A. What is that?

Q. Would you know what it contained? Would you recognize a copy of it?

A. Well, I would not say that; I would not remember exactly, but I would know if it was very much—materially different; I think I would recognize it sure.

Q. Was it signed by any one?
A. I know that; yes; it was signed by, I think, L. Holbrook for L. L. Nunn, as trustee, or something.
Q. Signed L. Holbrook?
A. I don't remember the exact words, but it was something like that.
Q. What was it?
A. It was "L. Holbrook, trustee for L. L. Nunn." I be-
202 lieve those were the words; I could not say exactly, but that was the idea.
Q. I will ask you to examine that, Mr. Cramer.
Mr. BAILEY: I would like to examine it also before the witness answers.
A. Well, I do not recognize it.
Mr. BROWN: Wait; don't say anything about —.

Mr. WEDGWOOD:

Q. Now I will ask you the question, Do you recognize that as a copy of anything you ever saw before?

Mr. BROWN: I object to it; he can't prove a notice in that way. It is not cross-examination, either.
The COURT: Answer the question. Take an exception, Mr. Bailey?
Mr. BAILEY: Yes, sir.
The COURT: The court is not informed yet as to what it is.

Question read by reporter.
A. I do not.

Mr. WEDGWOOD:

Q. And what time was it that you did this work you have just testified to?
A. That was in October, 1894.
Q. What time?
A. The latter part. I think I started about the 24th.
Q. Think you started the 24th?
A. Yes.
Q. Then, was that all the work you done that time you was here?
A. That is running that level.
Q. This that you have spoken of?
A. That is all I did at that time.
Q. Q. Now, when did you come again?
A. May 25th, 1895.
Q. May 25th, 1895?
A. Yes, sir.
Q. What did you do then?
A. I looked over the ground with a view—and did some surveying——
Q. Just tell what you did. I don't care what your view was, Mr. Cramer.
A. Located the line for the smaller power.

Q. Now, I want to know what you did. Tell me what physical acts you done.

203 A. Well, the first thing I did was to—when I went up to Mr. Thayer's—was to get my instruments and get the levels approximately between certain points.

Q. Now, what was that certain point lowest down the river?

A. Down the river, and also up the river.

Q. Well, where was the lowest point?

A. Opposite to a small stream that comes from the Alta ditch.

Q. And how far below the bridge is that?

A. About 2,500 feet, I should judge.

Q. And did you start at that point?

A. No, sir.

Q. Where did you start?

A. That is, I started up the river—that is, I was on the level above. I ran down that way, and also went up to see whether I could get the water onto that point.

Q. Well, now, where did you start that survey—where did you set your instrument, the first thing you did?

A. I was, I think, right around in the neighborhood of Mr. Thayer's house, so as to get the level.

Q. Well, just answer the question; don't go ahead of me. You set it near the mouth of the Alta ditch—creek?

A. No, sir.

Q. Now, whereabouts did you?

A. Somewhere near Thayer's house.

Q. What?

A. Where I wanted the line to run.

Q. Never mind where you wanted the line to run; how far below the bridge?

A. Mr. Thayer's is right opposite the bridge.

Q. Right opposite the bridge?

A. Yes, sir.

Q. Then, which way did you run from there?

A. I ran down and up the river.

Q. Well, take it down first. How far down did you run?

A. Why, right opposite that Alta creek.

204 Q. Then you went back and ran up?

A. Yes, sir.

Q. How far up did you run?

A. Up to where it struck the river.

Q. Well, how far was that?

A. I should judge about a thousand feet above the—no, I didn't measure the distance.

Q. Didn't measure the distance?

—. Had no object—no reason for doing so.

Q. Did you stake it?

A. No, sir.

Q. Did you make a plat of it?

A. No, sir.

Q. What did you do after that, anything more that time you were here?

A. No, sir.

Q. When did you come again?

A. October the 5th I come here, or 6th or 7th, I have forgotten which; October 6th, 1895.

Q. 1895?

A. Yes.

Q. Up to that time there had not been any stake set, had not been any map made, nor the distances been determined there by you?

A. I made no map. I had distances, you know, in a rough way. For the purposes of preliminary work I had all that I wanted.

Q. What time in October, 1895—October, did you say?

A. Yes, sir.

Q. What did you do?

A. Then I began work first on what is known as the Suhr line, a line that is 60 feet above the water at the Hanging—not at the Hanging rock, but at the Middle rock, which is practically the same as the Hanging rock.

Q. Now, just tell me what you did.

A. I had Mr. Suhr use the level.

Q. Did you do anything?

A. I was there with him.

Q. You was there with him?

A. I was there with him and saw what was done.

Q. Tell me what you saw done.

A. I had Mr. Suhr——

205 Q. Don't tell me what you had him do, tell me what he did.

A. He ran a level line from a position back of Mr. Thayer's house to above the Hanging rock. That was done the 9th of October.

Q. Upon the hillside?

A. Yes, sir.

Q. How far above the level of the river?

A. Well, it was 60 feet above the level of the river, near the Hanging rock.

Q. How near the Hanging rock?

A. Within about a thousand feet of it, at a point what we call the Middle rock or Mid rock in the river there.

Q. A thousand feet below Hanging rock?

A. Yes; a short distance below.

Q. Now, did he stake that line?

A. Yes, sir.

Q. And make a plat of it?

A. Well, he could not make a plat of it from the data that he took.

Q. He didn't take data enough to make a plat?

A. No, sir; we just ran a line, just a level. We didn't give the

courses and distances there. We wanted to get the nature of the whole country.

Q. Did you measure it?

A. Yes, sir; in that sense.

Q. How is that?

A. In the sense of all the measurement I wanted; yes.

Q. Well, in what way did you measure it?

A. Well, we got the level line and then I ran it to the river.

Q. Did you take any measurements of it, actual measurements?

A. Certainly; that is measurements, isn't it?

Q. Well, you may call it so, but I want to know whether you call it measurements of it.

A. I call it 60 feet; yes.

Q. Well, I mean the length of the line.

A. No; I don't know.

Q. Now, how long was you there that time?

A. I was there until October 29th, I think.

206 Q. What did you do in the meantime after this October 9th?

A. We ran several lines down the river.

Q. Well, now, what was the first line you ran down the river?

A. That was between twenty and thirty feet lower down than the previous one.

Q. Than the sixty foot?

A. Yes, sir.

Q. Between 20 and 30 feet lower down?

A. Yes.

Q. Where did you start with that?

A. I think at the point where I started the other one up the river. I started this down the river.

Q. Started at Middle rock or where?

A. No; it was at a point behind Mr. Thayer's house.

Q. And which way did you run?

A. Toward the mouth of the canyon.

Q. And how far did you run it?

A. Right opposite this, at the point, we reached that rock there, the cliff that comes out.

Q. At the mouth of the canyon here?

A. Yes.

Q. How much fall would you get with your line out here?

A. Well, I don't remember the exact number, but I can tell you. It was 280 feet plus 65, plus 60 minus 20.

Q. Did you stake that line?

A. Yes, sir.

Q. How?

A. We put in plugs and then put on flags on brush wood so as to indicate the line as we went down.

Q. How often?

A. Well, wherever it was needed; I should judge about every two or three hundred feet; sometimes more frequently; sometimes less.

Q. Put in plugs every two or three hundred feet?
A. Yes, sir.
Q. Did you measure the distance?
A. No, sir.
Q. Did you make a plat of it?
A. I don't see how I could.
207 Q. You didn't get enough data to make a plat?
A. I only got the data that I wanted.
Q. Well, please answer my question. You didn't get enough data to make a plat?
A. No, sir.
Q. Now, what was the next line you ran?
A. We ran one lower than that, still lower.
Q. How low?
A. Well, I could not say just exactly, but my impression is it was about 35 feet lower than the upper, the highest, one.
Q. That would be about from five to 15 feet lower than the second one?
A. Well, I think it was 15 feet or so lower than the second one; yes.
Q. What did you do; where did you commence that?
A. We ran that clear to the mouth of the canyon.
Q. Make a plat of that?
A. No, sir.
Q. Measure it?
A. No, sir.
Q. Make field-notes?
A. Certainly.
Q. But not sufficient to make a plat from?
A. Well, I didn't want any plats.
Q. Please answer my question. Sufficient to make a plat from?
A. You don't make a plat unless you *gave* got the distances.

The COURT: Answer the question, Mr. Cramer.

Mr. WEDGWOOD:

Q. What next did you do?
A. Ran a line on the other side of the river, on the south side.
Q. This was in——
A. October.
Q. October, 1895?
A. Yes.
Q. Where did you begin the line on the south side?
A. From the—I began about where the bridge is, up on the hillside there; I have forgotten the exact height there, but at a point that I chose there.
Q. Where did you run that line?
208 A. Run that until we struck a point practically at the mouth of the canyon.
Q. Well, did you make a plat of that?
A. No, sir.

Q. What next was done?
A. Put in another line a little lower down.
Q. And how far did you run that?
A. About six thousand feet down.
Q. Not to the mouth of the canyon?
A. No.
Q. Well, did you make a plat of that?
A. No, sir.
Q. What next did you do?
A. I left there then. I went home; my little girl was sick, and died.
Q. That was all that was done up to that time?
A. That was all that was done up to that time; yes, sir.
Q. You was in charge of all the work?
A. Yes, sir.
Q. When did you come back, Mr. Cramer?
A. I came back in November, just about a month later.
Q. What did you do next?
A. Mr. Suhr had in the meantime——
Q. I don't care what Mr. Suhr had done.
A. Well, I have to tell that in order to tell what I did.
Q. What did you do?
A. I helped him finish up a line that he had started.
Q. Whereabouts did you commence?
A. That was about 1,500 feet above the bridge.
Q. You commenced there, 1,500 feet above the bridge?
A. Yes, sir.
Q. And what line did you run?
A. Did I run personally?
Q. Well, or under your supervision, that you saw?
A. We—that is, Mr. Suhr had finished, and I was helping after that in looking over the cross-sectioning.
Q. Well, what did that cross-sectioning—of what did that line consist?
A. We had a canal there—that is, we had a line for a canal
209 to be run from that 1,500 feet to a point, my impression is, 6,700 feet below.
Q. 6,700 feet below?
A. That is what my impression is.
Q. That was commencing at Middle rock?
A. No, sir.
Q. It come in about 1,500 feet above the bridge?
—. ——.
Q. That would be this side of the Middle rock?
A. Yes, sir.
Q. And was that platted?
A. Yes, sir.
Q. Have you got that plat?
A. No, sir.
Q. Well, what was done immediately after? You examined the field-notes. What did you do after that?

A. We worked in getting up head-gates—selected some idea about how to cross some points there. We were crossing some ugly places of rock there, and we were talking about putting in the kind of a flume and the size, etc., there.

Q. What did you do, Mr. Cramer?

A. Worked there.

Q. Well, what did that work consist of?

A. Calculations and drafts.

Q. Well, I mean on the ground?

A. Well, this was when I come back.

Q. When you came back in November, after you checked over this line that you just said had been run while you was gone, what was done on the ground by anybody, if anything?

A. We finished up all the work that had been run, but had not been cross-sectioned. We finished that work whenever we were able to go out. The weather got to be quite bad in that part, and we were rather slow in going ahead with it.

Q. What was done on the work—on the ground—if anything?

A. The ground was cleared—was cross-sectioned—and stakes put out on the grade, and stakes put out so as to show where we would have to excavate and how much—to what extent.

Q. Now, how much brush was cleared?

A. How much what?

210 Q. How much brush was cleared?

A. About 60 feet wide.

Q. And for how long?

A. For the whole 6,700 feet.

Q. Commenced about 1,500 feet up the river from the bridge?

A. Yes, sir.

Q. Who did that? Who was working at that time?

A. Well, we had quite a number of men; I don't know the names.

Mr. BROWN: You mean the workmen that cut the brush?

Mr. WEDGWOOD:

Q. Yes. You don't remember them?

A. I don't know their names; no.

Q. Well, what next was done after that?

A. We made the plats and did such work as was needed regarding the bad places that we wanted to go through with the flume, designed the size of the flume.

Q. You say you haven't got that plat?

A. No; I haven't. It must be around here, but I haven't got it.

Q. Well, what was done after that at that time?

A. Well, that took us, you know—the work that I have been explaining took us until about the first of January. On the second day of January I started on my way to Mercur to examine with a view as to the——

Q. Well, I don't care anything about that.

Mr. BROWN: You asked him what was done. That was an act of doing, wasn't it?

Mr. WEDGWOOD: Well, it might be an act of doing something; it wasn't in the canyon.

Q. What was done in the canyon next by you or anybody that you had charge of while you was there?

A. In January?

Q. Any time.

A. I wasn't up there.

Q. Well, when did you go up there again?

A. February 15th or 16th; I am not sure.

Q. What did you do?

211 A. We were waiting there and finishing up some little things with regard—we were waiting there to have bids on the excavation of this canal line.

Q. Well, what was the next work that was done up there, and when was it?

A. That was it; February.

Q. Well, but after that?

A. In March we began work on the flume line, and that started out at just below the—immediately below the Mid rock in the river.

Q. And then this flume is located on this ground that you surveyed there in November that you made a plat of?

A. No, sir.

Q. Did you afterwards make another survey?

A. Yes, sir.

Q. And change that?

A. Yes, sir.

Q. Well, when did you do that?

A. That was done in March.

Q. You made a new survey entirely in March?

A. Yes, sir.

Q. And abandoned the old one?

A. Yes, sir.

The COURT:

Q. March, 1896?

Mr. WEDGWOOD:

Q. March, 1896?

A. Yes, sir; March, 1896.

Q. Where was that begun?

A. That was begun at the point we have now the flume line there.

Q. Yes. Well, where is it, above the bridge?

A. It is about a mile and not quite a half above the bridge; it is about 500 to 600 feet below the Mid rock in the river.

Q. And how far below Hanging rock, about a thousand feet?

A. Fifteen hundred feet below Hanging rock.

Q. Who surveyed that line?
A. Mr. Searle and Mr. Sterling, under my direction.
Q. When did they start?
A. Some time in March; I could not tell you the exact date.
Q. And how far did they run that line?
A. That line was run to behind Thayer's house.
Q. Has it since been continued?
A. Yes, sir.
212 Q. How far down, about?
—. All together, close on to eight thousand feet.
Q. Has that line ever been run to the mouth of the canyon?
A. That line? I could not say positively; I think not.
Q. Do you know how much fall that would give at the mouth of the canyon?
A. I could not tell you that—yes; it is 283 and not quite 65 feet, minus the fall, of course, of grade, that you lose on the grade.
Q. What would be your net fall?
A. I would first have to calculate back and see just what I have——

The COURT: It is time to adjourn now. Perhaps we better take a recess until 2 o'clock p. m. if the examination of this witness will take much longer.

Mr. WEDGWOOD: It is liable to take from a half to three-quarters of an hour.

Recess taken until 2 o'clock p. m.

Resumed session.

F. J. CRAMER called for further cross-examination.

Examined by Mr. WEDGWOOD:

Q. Mr. Cramer, coming back to this survey of November 9th, the survey that the brush was cut on, I believe you said that that joined with the river about 1,500 feet above the bridge?
A. Of November the 9th?
Q. Yes.
A. No, sir.
Q. When did you make that survey? I understood you commenced on November 9th.
A. November 9th; no—November 9th—I wouldn't say; it was October 9th, I think I said, that we began running up the river on the 60-foot Suhr line.
Q. No; I am not talking about that; I am talking about the last survey that was made before the survey where the present flume is.
A. Oh, I wasn't here November 9th. That is the reason I
213 supposed it must have been the other.
Q. Well, you said you saw thet, you checked it up?
A. Yes, sir.
Q. Said that Suhr did it and you checked it up afterwards?
A. Yes, sir.
Q. And that I understood you connected with the river about 1,500 feet above the bridge?

A. In that neighborhood.

Q. Now, was there a stake placed on the bank of the river near where that survey joined the river?

A. Which one, the——

Q. This one that I am talking about, this one of Suhr that you checked up?

A. Yes; there was a stake close by; yes.

Q. What kind of a stake was that?

A. It was a square—no; I think it was a two by four, or perhaps three.

Q. A four by four, wasn't it?

A. Perhaps so; yes.

Q. Was there any marks on it?

A. I think that had a mark on it showing the height of the water that we expected to take out at that point.

Q. Wasn't it marked "Top of dam"?

A. I could not say that.

Q. You would not swear that it was not?

A. No; I could not say that either.

Q. Do you know when that stake was placed there?

A. It must have been some time in November.

Q. Well, do you know? I don't want your reason for it; do you know?

A. I could not say positively.

Q. Do you know who placed it there?

A. Mr. Suhr must have placed it there.

Q. Well, do you know?

A. No, sir.

Q. Now, do you know how high that was above the level of the river?

A. My impression is it was ten or twelve feet.

Q. You know the railroad grade as it was run on the north side of the river?

A. Yes, sir—that is, as much as there is.

Q. Did the railroad grade interfere with that in any way?

214 A. I could not say. I haven't made any——

Mr. BROWN (interrupting): The line of what? Of that survey?

Mr. WEDGWOOD: The line of that stake.

Q. Now, Mr. Cramer, when was this survey of the present flume location commenced?

A. Some time in the beginning of March.

Q. Do you know?

A. I could not say the exact date, just what date.

Q. Did you make a memorandum when it was commenced?

A. I could not say that either, unless I looked it up.

Q. Who made that survey?

A. It was made under my direction by Mr. Searle and Mr. Sterling.

Q. Mr. Searle and Mr. Sterling?

A. Yes, sir.

Q. Did you see them as they were doing the work?
A. Yes, sir.
Q. Where did they start to make that survey, about?
A. Just a short distance—just immediately below the Hanging rock—not the Hanging rock, but the Middle rock.
Q. The Middle rock; and how far was that survey made down the river?
A. That survey was made down the river about 6,000 feet, I should say.
Q. All told?
A. All told.
Q. Was it staked?
A. Yes, sir; there was a center line, and then there was a topographical survey—that is, the contour lines marked.
Q. Contour lines marked—platted?
A. Yes, sir.
Q. Have you got the plat?
A. I haven't seen the plat; no. It may be up the canyon. We have them.
Q. You haven't seen it? Do you know whether it was platted or not?
A. You say, I know whether I platted?
Q. Do you know whether it was platted?
A. I know they were platted.
215 Q. Have you got the field-notes of that survey?
A. Yes, sir—that is, I haven't them with me. We have those, too.
Q. Have you them where you can get at them?
A. They are in the office.
Q. I would like to have you bring them here. Now, was that survey carried any farther than 6,000 feet?
A. I carried it afterwards about 2,000 feet beyond that, and there was some run beyond that.
Q. How much was run beyond that?
A. Well, that I could not say exactly. Mr. Buckler was running that. It may possibly be that on that line we ran down to the canyon, but I am not sure.
Q. You don't know of your own knowledge?
A. No; I do not; which one. I know we ran one of them, but which one it was I don't know.
Q. Do you know what the fall of the water—the net fall—would be from that flume run out to the mouth of the canyon?
A. Yes, sir.
Q. What would it be?
A. It would be 283 plus 60; those are the data that I have in my mind.
Q. Would that be the net fall?
A. No, sir; that would be the fall that we would have if a horizontal line was started at the head of the flume and then turn in the water at the head of the Provo Bench canal.

Q. Do you know what the net fall would be deducting the fall of the flume of grade?

A. I should say it would be about 25 feet less.

Q. Now, after this survey—when was this survey completed?

A. Which, for the flume?

Q. Yes.

A. That must have been completed about towards the 24th or 25th of March.

216 Q. Any work done on it after that time?

A. In what way do you mean?

Q. You mean that the survey was finally completed at that time?

A. Oh, there was some going on right along.

Q. Yes; are you positive as to that date?

A. The 24th? Yes; I think so.

Q. What makes you positive of that date?

A. Because I know we began surveying on the contour line pretty soon after that.

Q. Pretty soon after that?

A. Yes.

Q. But have you any definite recollection of the particular date that you got through with that survey down there?

A. Well, that is very indefinite to say. If you mean by that when I began at something else—you now and then go back to see——

Q. (Interrupting). No; I don't care of anything else now, Mr. Cramer; I am fixing the date you stopped on that, if you know of your own knowledge.

A. We didn't stop entirely on that until November, but I took levels——

Q. (Interrupting). Well, but did you continue surveying on that up until November?

A. There was some levels taken at that time; yes, sir.

Q. And worked continuously on that line up until November, where the present flume is?

A. We have worked on it—yes—more or less, all the time.

Q. Now, when did you first commence to make this flume grade?

A. It must have been some time after April the 6th.

Q. Some time after April 6th?

A. Yes, sir.

Q. And how much grades did you construct?

A. Close on to 7,000 feet.

Q. And how much did that cost?

217 A. Well, I could not tell you that without studying this thing over more; you mean this——

Q. (Interrupting). Well, you are the engineer of that company?

A. Yes.

Q. Don't you know how much it cost to build that flume bed?

A. Yes; if you give me time to look up my data I can tell you exactly.

Q. Haven't you any recollection on that?

A. Didn't you ask me distinctly about the flume bed?

Q. Yes; the flume bed, I am talking about, to put the sills on.
A. I should judge it cost at least from 30 to 40 cents a foot.
Q. How is that?
A. I should judge it cost from 30 to 40 cents a foot.
Q. From 30 to 40 cents a foot, and there are 7,000 feet of it?
A. Yes, sir.
Q. Now when was the flume started on that?
A. I think the beginning of August.
Q. And how much flume was built?
A. Four thousand feet.
Q. Now, what is the fall of that flume—the grade on which the flume is?
A. One foot in a thousand.
Q. One foot in a thousand?
A. Yes.
Q. What did that flume cost?
A. I know the contract price was two dollars a foot.
Q. Two dollars a foot?
A. For the bare flume.
Q. For the bare flume; well, what did the flume including the foundation sills and chairs cost?
A. Do you mean without any reference to the pay of the engineers and such things?
Q. Yes; now I am taking it without any pay for the engineers—simply that mechanical contrivance.
A. Close on to $2.75 a foot.
Q. Now, what did it cost for the engineering work on that flume?
218 A. On the flume itself?
Q. On the flume bed, all the work on it from the time the engineering work was started on it, on that particular survey.
A. I should judge about twelve hundred dollars.
Q. Twelve hundred dollars. What is the carrying capacity of that flume on its present grade?
—. Thirteen thousand cubic feet a minute.
Q. Carried to the mouth of the canyon with that full of water, how much horse-power would be developed?
A. Well, I have not figured especially on that, because I have never—always worked for a certain point, and I haven't that specific data. I can give what it would be under conditions of a fall like that or a certain head and a certain amount of water. I can very readily calculate as to the theoretical horse-power, but I have made no especial calculations.
Q. Mean to say you have never made any calculations as to what the horse-power developed by that flume full of water would be at the mouth of the canyon?
A. I have not.
Q. At what point in the canyon have you made a computation of the horse-power that would have been developed?
A. I have always gone back to the hanging point, on what I consider to be the permanent line.

Q. Will you please answer my question?

Mr. BROWN: He has answered it.

Mr. WEDGWOOD: I asked him about the flume.

A. You asked me what line——

Q. I asked you this question: At what point on this line of this present survey have you calculated what horse-power would be developed by your flume being full of water?

A. I have calculated where there is a ledge of rock going into the river—I don't know how to designate it. It is about 6,000
219 feet from the head of the flume. I made some calculations regarding that far.

Q. Then you have calculated what the horse-power would be 7,000 feet from where the flume connects with the river?

A. Yes, sir; that is, a little over 7,000.

Q. A little over 7,000. What would be the net fall at that place of water?

A. At that point?

Q. Yes.

A. One hundred and thirty feet. That makes no allowance for the raise in the river.

Q. Well, what would be the maximum fall at low water?

A. Maximum fall at low water?

Q. Yes.

A. That is what I told you.

Q. How much is that?

A. 130 feet.

Q. Now, what would be the minimum fall the fall of high water?

A. Well, I could not tell you unless I had the stage of the water.

Q. Well.

A. It might be four or five feet, I should judge; might possible be more.

Q. What horse-power would be developed there?

A. About 2,000.

Q. And when was the work completed up to its present stage on that flume; what time of the year?

A. I didn't understand what you said.

Q. What time in the year was the work completed on the present flume as far as it has gone?

A. It was not completed when I left.

Q. It was not completed when you left? When did you leave?

A. I think it was November 21st. It was certainly the last week or so in November.

Q. Of 1896?

A. Yes.

Q. Now, Mr. Cramer, when did you first do any work at the Hanging rock?

A. About October 9th or 10th, 1895.

Q. And what was that work that you did?

220 A. Running a line on the grade 60 feet above the water at the Middle rock.

Q. That is the Middle rock; did you carry it up the Hanging rock?
A. Yes, sir.
Q. That was the 60-foot work up there?
A. Yes, sir.
Q. That is the one you didn't make any measurements on or made no plat of?
A. I made no plat of it.
Q. That was November 9th?
A. October 9th.
Q. 1895; when did you next do any work?
A. I don't hear you, you put your hand in front of your mouth.
Q. Excuse me; when did you next do any work up there?
A. I was running work lines there right along all the time I was here.
Q. I want to know in detail. You say the first work you done was about October 9th, 1895, and that was running a line up here at 60 foot, commencing at Middle rock.
A. Yes, sir.
Q. And running up to Hanging rock about a thousand feet; now, how long did it take you to do that work?
A. About a week, I should judge.
Q. Well, what did you do after that?
A. I ran a second line a little lower down.
Q. A little lower down than that?
A. Yes.
Q. Now, how far up did that extend?
A. Also above the Hanging rock and down to the mouth of the canyon.
Q. That is what you testified to this morning.
A. Yes, sir; that is my understanding of it.
Q. And when did you complete that?
A. Well, I could not say exactly, but it was some time about October.
Q. That you made no plat of?
A. No, sir.
Q. What did you do next?
221 A. Ran another line lower down than that still.
Q. Did that come clear up to Hanging rock?
A. Yes, sir.
Q. You made no plat of that?
A. No, sir.
Q. That was still in October?
A. Yes, sir; it must have been.
Q. What after that?
A. I ran a short—I began three lines. I ran three lines on that side, then I ran one on the other side, beginning about the same height, across the river on the south side, and ran that down towards the mouth of the canyon.
Q. Did that run up to Hanging rock?

A. No; that did not run up to Hanging rock, except in this way that I had in connected with the lines that did run up there.
Q. On the other side?
A. Yes, sir.
Q. In your mind?
A. In what?
Q. In your mind?
A. No, sir.
Q. Connect it with any plat?
A. Is there any necessity to connect with any plat?
Q. Just answer my questions.
A. I did not connect it with any plat; I didn't have any——
Q. When did you finish up that line?
A. I must have finished that in the latter—that is, about the 23 or 24th.
Q. Of October?
A. Yes; I think so.
Q. Well, what next was done?
A. Then I ran a line down on the south side, somewhat lower down—it must have been considerably lower down—and that was about, I should judge, a thousand feet above the bridge, beginning and then running down about six thousand feet on the south side.
Q. Yes, and then you built this—then you went away and Suhr made this November grade and then the present flume grade?
A. Yes, sir.

Q. Well, now, when after that was done did you next go
222 to work up the river towards Hanging rock?
A. I didn't understand the question.

The COURT: Read the question, Mr. Reporter.
Question read.

Mr. WEDGWOOD:

Q. I will ask you, Mr. Cramer, how far above the river was the level of this line you ran on the south side? I think you gave the level of the others this morning.
A. At what point do you mean?
Q. Well?
A. It was at the river at one point.
Q. Well, do you know, then, where that was?
A. About a thousand feet above the bridge.
Q. And at the bridge what would it be, six or seven feet above the river?
A. Well, I could not say exactly, but my impression is about 12 or 15 feet.
Q. Yes. Now, after the grade for the flume, the present flume, was established, when did you next go to work up by Hanging rock anywhere?
A. I started a survey there after this about March 27th.
Q. You say you started it?

A. Yes; in the sense that I told Mr. Searle to go to work up there.

Q. Do you know when Mr. Searle did go to work up there?

A. Did what?

Q. When Mr. Searle did go to work?

A. I think it was the 24th.

Q. Do you know?

A. Oh, I am not sure about that.

Mr. BROWN:

Q. The 24th of March?

No response.

Mr. WEDGWOOD:

Q. There had been nothing done up there, then, from the time you ran the 60-foot line you have spoken about until this time, had there?

A. Oh, yes; I had run the other lines also.

Q. Well, they were down below; you kept going down the hill?

223 A. Yes.

Q. But the first work that was done up there after you ran those lines was this time in March—the last of March?

A. No; I had run some lines up as far as Mr. Ferguson's before that.

Q. Well, I have been trying to get them. Now, please tell us what they were, one at a time.

A. I ran a grade line from or—that is, connecting the system from Mid rock, which I had connected with the mouth of the channel up to a corner there, at a rock on the corner of Ferguson's house. I wanted to get the level of that point. I ran a level to there.

Q. When did you do that?

A. Well, that was done by Mr. Suhr at the time; it must have been in November. I could not say the exact time.

Q. Make any plat of it?

A. No, sir.

Q. Well, what else was done between that and March, if anything?

A. Well, I was up and down the river, but not making any surveys.

Q. Well, what was done in the line of work, actual work?

A. Well, I consider that is what I was paid for.

Q. Well, please don't tell me what you consider; tell me what you did, or your men.

A. Well, I went up and down the river three or four times with a view of examining——

Mr. WEDGWOOD (interrupting): I move to strike out the answer of the witness.

Mr. BROWN: I object to it. He asks what he actually did, and he goes on to tell what he did.

Mr. WEDGWOOD: I asked the witness what he or anybody else did and he said he walked up and down the river with a view. I don't want his views.

Question and answer read.

Mr. WEDGWOOD: I move to strike out "with a view."

224 The COURT: Well, yes.

Mr. BROWN: I take an exception.

Mr. WEDGWOOD:

Q. Now, what was actually done by you or your men in the line of physical work upon the ground after that time, at or about the Hanging rock?

A. Well, I went up and down a half a dozen times, as I told you before, examining the ground with a view of telling as to the best place of doing work.

Mr. WEDGWOOD: Now, if the court please, we move to strike out his answer as not responsive.

A. Judge, I think I understand the English language *language*, and I am speaking English, just as well as that lawyer does.

The COURT: Well, never mind.

Mr. WEDGWOOD:

Q. I asked him in the way of physical work.

A. Well, I was being paid for it. Don't you consider that work, if you are paid for it?

The COURT: Well, don't argue it, Mr. Witness.

Mr. WEDGWOOD: We move to strike out the answer "with a view" and all that comes after.

Question and answer read.

The COURT: That portion of the answer that is not responsive may be stricken out and you may take an exception, Mr. Brown.

Mr. BROWN: Well, I will.

Mr. WEDGWOOD:

Q. Now, tell me what the next work was; what it consisted of at that time that you ran the line up to Ferguson's place.

A. I didn't understand your question.

Q. Did anybody make a survey after that time?

A. After——

Q. The time you ran it up to Ferguson's?

A. I think not. Do you mean in that year?

Q. Yes; what was the next act that was done in the line of survey, or stakes, or digging, or anything else, by you or your

225 men, above Hanging rock or at Hanging rock?

A. I do not think there was any done at that time until the next—that is, in 1895.

Q. Until 1895?

A. Yes, sir.

Q. Now, what was first done in 1895; you mean 1896, don't you?

A. Why, I said 1895. That is just exactly what I mean.

Q. Well, when was this work? This work was all done in 1895, wasn't it—October?

A. Yes, sir; October and November.

Q. And what time was it you ran the survey up to Ferguson's?

A. Some time in November.

Q. Well, now, what was the next thing that was done after that?

A. I went over with Mr. Suhr on the line of canal that he had run while I was away to Denver—had surveyed—and we outlined, put the stakes out, cross-sectioned, and did the necessary work to get that in shape so as to allow the contract to be let.

Q. That was below Hanging rock?

A. Yes, sir.

Q. I am talking about Hanging rock or above that?

A. There was nothing done.

Q. Then, when was the next thing done?

A. The next time, then?

Q. Yes.

A. Some time in March.

Q. 1896?

A. 1896.

Q. You don't remember the exact date?

A. Well, I am positive, from the fact that I know that I put a stake out in March the 27th, that it must have been a few days before that; it could not have been more than one or two days before March 27th.

Q. You put out a stake March 27th?

A. Mr. Searle did.

Q. Did you see him do it?

A. Yes, sir.

Q. Where did he put it?

A. On what is now known as the 60-foot Suhr line.

Q. On what is now known as the 60-foot Suhr line?

A. Yes, sir.

—. Where was it as to point of location?

A. It was nearly opposite the Mid rock, as we call it—that
226 one that is in the middle of the river there, the big rock.

Q. And about a thousand feet below Hanging rock?

A. Yes, sir.

Q. And how far above the level of the river?

A. 60 feet.

Q. Was there a notice on that?

A. Yes, sir.

Q. Now, what was done after that? When was the next work done?

A. There was work going on continuously with the enterprise from March 27th in running a 60-foot-grade line, both down on the contour and also our present reservoir site.

Q. Now, when did that commence on above where the notice was posted?

A. Right about March 27th; I think that very day, but I am not positive.

Q. Now, how long did that work continue?

A. Until some time in April; about the middle of April, I should judge.

Q. Did it continue without any interruption until that time?

A. Well, some time. Some days Mr. Searle would have to come down to give some points to Mr. Madden on the construction of the flume bed.

Q. Yes. Now, how often would it happen that Mr. Searle would come down?

A. Well, I should judge three or four times. He come sometimes a had a day, sometimes an hour, and sometimes it would take a whole day.

Q. Would there be anybody up there when he was gone?

A. On the line?

Q. Yes.

A. I think not unless he had left some men there cutting out brush. He generally did that.

Q. But he would take his party with him, his rodmen?

A. He wouldn't need his whole party on the lower line, the flume line.

Q. That was the 60-foot level that was run?

A. Yes, sir.

Q. And how far up the river was it run?

227 A. Up to—my impression is up to North fork, close to North fork—that is, in general terms, it was up to North fork. It wasn't quite up to that, I don't think.

Q. Now, was that staked at that time?

A. You mean——

Q. That line that he run.

A. Yes, sir; that was staked.

Q. What kind of stakes?

A. Two-by-fours generally; between four and five feet long.

Q. Have you got the plat of that? Was there a plat made?

A. Well, no; not improved, of that—that is, I could indicate in a general way. I think there was a plat of it, but I don't know whether it is in shape to show just exactly how the thing is.

Q. Well, that went up until the middle of April—that line?

A. Yes; I think until about the middle of April.

Q. Then what was the next thing done on that?

A. Then we began on the 85-foot line.

Q. When was that work begun?

A. About the middle of April.

Q. About the middle of April?

A. Yes, sir.

Q. Who began that work?

A. Mr. Searle—that is, it was always done under my direction.

Q. Yes, certainly; but what did he do?

A. He ran a contour line clear around on from that level up to the head—that is, up to the river until he crossed it—and then on

the other side, and made a connected survey—that is, distances and courses—from each stake to the other, and put up stakes also.

Q. That was on the north side of the river?

A. That was on both sides of the river.

Q. Did he run clear around and back to the dam on the south side, or back to where he started?

A. If you understand what I meant by that, he levelled across on both sides of the river. He tried to get over onto the other side, but he could not cross the river very much on account of the
228 great depth of water then.

Q. Then there was no stakes set on the south side?

A. Yes; they were set on both sides, but what I mean he couldn't go back and forth across the river; he had men on both sides of the river at that time.

Q. Now, when was that work completed?

A. June 6th.

Q. Did you see that notice posted on the 60-foot level?

A. If I got it.

Q. Did you see it?

A. On the 60-foot level?

Q. Yes.

A. Yes, sir.

Q. Did you see the notice?

A. Yes, sir.

Q. Do you know what it contained?

A. Yes, sir.

Q. I will ask you to look at that (exhibiting paper to witness). Do you recognize that?

A. Well, in a certain sense I do. I know I never wrote L. L. Munn.

Q. What did you write?

A. Nunn.

Q. You wrote the notice yourself?

A. Oh, the notice as a whole isn't just it; I didn't write that at this point here; that wasn't on it.

Mr. BROWN: Of course I had better see it. I presume it is something like that.

Mr. WEDGWOOD: I have no objection.

Mr. BROWN: I have no objection to them putting in the notice when you get the correct one. Better change the word "Munn" to "Nunn."

Mr. WEDGWOOD:

Q. I will ask you to look at that part of the notice between those lines?

A. I can compare it with my note that I have in my pocket.

Q. Can you tell without that whether it is a correct copy?

A. I have a copy; yes.

229 Q. Well, you may compare it and see if it is a correct copy, or with the original, either one, if you have got it.

A. No, sir.
Q. That isn't a correct copy?
A. I do not recognize that.
Q. Now, when was this line finished around the 85-foot level?
A. June 6th.
Q. Well, what was done after that line, if anything?
A. We platted it and calculated the courses and distances and platted out the area of it.
Q. Have you got the field-notes?
A. They are out of my possession; they are in the company's possession; yes.
Q. You are still their engineer; you are still in the employ of the Telluride Power Company?
A. No, sir.
Q. They are in the possession of the power company?
A. Yes, sir.
Q. We would like to have you produce those notes.

Mr. BROWN: All right. Do you want them now or when Mr. Searle is on.
Mr. WEDGWOOD: Well, either one.
Mr. BROWN: All right. What you want are the field-notes of the outside line of the 85-foot reservoir?
Mr. WEDGWOOD: Yes; and the map.

Q. Now, coming back, Mr. Cramer, to the 60-foot line that was run from Middle rock to North fork, that was only run on one side of the river?
A. Oh, it was both sides.
Q. Run on both sides?
A. Yes, sir.
Q. Have you got the field-notes for that?
A. Yes, sir.
Q. And a plat made of that?
A. No, sir.
Q. I will ask you the question, did you make that map yourself?
A. No, sir.
Q. None of it?
A. I am no draftsman at all.

Q. Now, Mr. Cramer, you stated, I think, that Hanging
230 rock and that a point of rocks opposite it were a natural dam site.

A. Yes, sir; I should say so.
Q. How wide at the bottom? Well, I will change that question. How wide at bed rock is the space between those cliffs or reefs?
A. Well, that I do not know. I could tell you what it is above.
Q. You never have been down to bed rock?
A. No, sir.
Q. Don't know how far bed rock is below the bottom of the river?
A. Well, that depends upon what you mean by that.

Q. I want to know if you know, as an actual fact, by test, how far bed rock is below the bottom of the river.

A. I think I know how far it is.

Q. I am not asking you for what you think; I am asking you what you actually know.

A. Well, I know that, too.

Q. Yes; I see you know. How did you find out?

A. Well, I judge, by this way——

Q. I am not asking you how you judge.

A. Can't I tell you how I found out, then?

Q. I want to know how you found out.

A. I went and looked up the ground sufficient to give me a judgment on it.

Q. But without actual work—experiment—you don't know how far it is.

A. I consider that an actual test and actual work.

Q. I am not asking you what you consider.

A. Well, if you ask me a certain question, I will have to tell you as I consider an answer to it.

Q. I am not caring what you consider.

A. If you want to know if I sunk a shaft down there, I can tell you.

Q. All right, did you do that?

A. Yes, sir.

Q. How much?

A. Eighteen feet.

Q. Did you sink more than one shaft?

A. Yes, sir.

231 Q. How many?

A. I sank two—that is, I worked on one that Mr. Madden had started.

Q. How far did you sink the second one?

A. I sank that, I should judge, ten feet.

Q. Did you find bed rock?

A. No.

Q. Well, how much had it been sunk before that?

A. Well, I hadn't seen it—it was eight or ten feet when I stopped on it.

Q. Then you don't know actually how wide it is between the two reefs at bed rock?

A. I know that it cannot be over a certain width.

Q. You don't know except by estimate?

A. I could not tell you that; no. No; I could not say exactly; don't see how a person could.

Q. And you don't know how deep a dam would be below the bed of the river to be on bed rock?

A. I think I do.

Q. Not by actual experiment?

A. On that also.

Q. Actual experiment?

A. Yes, sir.

Q. How can you tell, if you have not been down to bed rock?

A. That is what I was going to tell you. I know that a big rock will always lay on a solid foundation, and if the river gets a chance to run like Provo river does it will always sink down close to bed rock; and if you see a big rock on the surface, you know it is close to bed rock. Well, that big rock, which rests upon the stream about a thousand feet below the Hanging rock, is just that kind, giving me reasonable data to work from to show that there cannot be any great depth at Hanging rocks.

Q. Well, you went down 18 feet and didn't find it?

A. I went down 18 feet and didn't find it.

Q. How wide is it between them at the level of the river?

A. I could not tell you that, either. I measured from the
232 top about 60 or 70 feet high across.

Q. On the outside of that?

A. On the outside of that it would be, of course; yes.

Q. You don't know how much it is at the level of the river?

A. Well, I know within a few feet distance what you mean.

Q. But you never made any measurement?

A. I measured this upper one.

Q. And then you guessed at the lower one. I am asking you if you measured it.

A. Well, I don't guess things that way.

Q. Don't guess by measuring?

A. No, sir.

Q. Now, how wide is it at the 85-foot level between those two rocks?

A. I don't know that, either. I know what it is at 70 feet.

Q. But you never made a calculation to see how far it is at the 85-foot?

A. Well, practically, if you know one you know the other.

Q. I am asking you if you know it.

A. No, sir; except in this way, except that our survey showed the distance across.

Q. Has any plan been made for a dam at that point?

A. No, sir.

Q. No plan whatever?

A. Did you say plat?

Q. No; plan for the dam.

A. No; I ain't made any plan.

Q. Now, you spoke this morning—or I will ask you the question first—withdraw that. What would the cost of putting in a power plant capable of generating two thousand horse-power 7,000 feet down from the present junction of the flume with the river—what would the cost of that plant be?

A. I could tell you what the cost of the work would be, about.

Q. Well, what would it cost?

233 A. I don't know anything about the cost of the electric plant.

Q. Don't know anything about that?

A. No.

Q. Can't tell what it would cost completed, ready to put the electricity over the wire?

A. No; I could not, because I do not know anything about the cost.

Q. Nor how much a mile it would cost for wire?

A. I don't know that, either.

Q. Now, you stated to your counsel, if I understood correctly, this morning that that was for a temporary plant.

A. Yes, sir.

Q. Now, what do you mean by a temporary plant?

A. One that is not permanent.

Q. For what purpose would a temporary plant be there in the canyon?

A. We wanted power.

Q. What for?

A. To work on the permanent plant.

Q. What would be done with the power on the perma-nt plant?

A. The plan was to dig a canal and use the power plant for that purpose.

Q. For what purpose?

A. Digging the canal.

Q. Digging the canal?

A. Yes, sir.

Q. Where?

A. On the 60-foot level.

Q. What kind of a canal?

A. One to carry the river to the power plant.

Q. And where would the power plant be?

A. At the mouth of the canyon.

Q. How would you dig the canal with power?

A. Well, you can dig it; use a power shovel for it.

Q. Could you use a power shovel upon the 60-foot level on the side of the cliff there?

A. I think you could.

Q. That would be practicable, would it?

A. I think so.

Q. How much power would it take to run a power shovel?

234 A. I know nothing about that.

Q. You don't know whether it would take 2,000 horsepower to run a power shovel?

A. I do not.

Q. You have no knowledge, as an engineer, — anything about this dam or anything about the cost of putting in this plant or anything about the practical utility of it to build any other plant, have you?

A. Oh, you are asking too many questions at once; I know some and I don't know others; divide it up.

The COURT: Divide 'em up, Mr. Wedgwood; ought to divide it by six.

Mr. WEDGWOOD:

Q. Well, I think he has answered the question. Now, if you wanted power to build a canal, and had to build a dam to raise the water to that canal, couldn't the dam be built and the power used right there cheaper than it would build a 7,000 feet of flume and put in a——

A. (Interrupting.) No, sir.

Q. It couldn't?

A. No, sir.

Q. Why not?

A. Now, if I understand you, you are asking me whether—that is, for instance, what we are doing now, whether that plant would me more costly than to go and start a dam at the point where we are now and get power from somewhere; I do not see how we could get power until we had a dam—that is, until the work was done.

Q. Well, you say you have got to build a dam or want to build a dam at a certain place?

A. Yes, sir.

Q. And you want power in order to dig a canal upon the side hill?

A. Yes.

Q. Wouldn't that dam, when it was built, furnish the power?

A. Yes; if it was built.

Q. Well, couldn't it be built just as cheap at one time as another?

A. No, sir.

235 Q. Why not?

A. Because I can build it cheaper when I have power than when I have not.

Q. Oh, you want to use the power to build the dam?

A. Yes.

Q. What would you do with the power to build a dam?

A. Power is always useful anywhere for any——

Q. (Interrupting.) Well, just tell the court—inform us what you would do with the power in building that dam.

A. You can excavate with it; you can do rock-work with it.

Q. Well, I want you to tell specifically what you would do with those 2,000 horse-power in building this dam up here.

A. Well, it seems to me that I am telling that thing. I would use it for excavating and use power to handle the material with which the dam is to be made.

Q. That usually is handled by derrick, isn't it?

A. We-, I can't get a derrick high enough to handle the rock there where I want to get it.

Q. Well, where would you handle it?

A. I would use a wire rope and power.

Q. What kind of power?

A. Electric power.

Q. Wouldn't you have to have a derrick?

A. I don't think I would.

Q. How would you connect the electricity to the wire rope and to the rock?

A. I would put it on to the motor.
Q. What would the motor connect with?
A. With whatever we wanted to use it.
Q. With what would you use in building that dam? That is what I want to find out.
A. I don't know that I can answer that question any more definitely than I have.

Question read.

Q. What machinery would you use that you would take
236 power from, from the motor in building that dam?
A. I would use it first of all as a motor to excavate the ground where I proposed to sink my dam—that is, to put the foundation in—and I would use it again to transport the material from the point where I had quarried it down to the point where I proposed to use it.
Q. Now, take the first one, and what kind of machine would you use in excavating for your dam?
A. I would use a power shovel.
Q. Is there room for a power shovel between the river and those rocks?
A. Undoubtedly.
Q. How much room is there between the river and those rocks?
A. There is about three feet.
Q. Three feet on each side of the bank?
A. Yes, sir.
Q. Now, from the river on the south side to the rocks, supposing this is the river, how far is it?
A. How far is it to the rock?
Q. Yes.
A. On the south side?
Q. Yes.
A. The river flows right against it.
Q. Then, you couldn't use a power shovel there?
A. Not while the river was there.
Q. Oh, you could turn the river out and then use the power shovel. Is that it?
A. Why, certainly; you could do that.
Q. Then, how far is it from the north side of the river to the rock?
A. From the river to the Hanging rock on that side I should judge about 360 or 70 feet.
Q. About 360 or 70 feet?
A. Yes, sir.
Q. Then, how far is it from Hanging rock on the north side of the river to the reefs on the opposite side of the river?
A. On the 70-foot level?
Q. No; I am not taking——
A. (Interrupting.) I know it would be about 400 feet.
Q. That is, the 70-foot level?
A. No; at the bottom.

237 Q. At the bottom. Now, do you mean to be understood as saying that it is 300 feet from the line of the river on the north side to the edge of that rock?

A. Do I what?

Q. 300 feet from the line of the river, the west bank of the river—north bank of the river—to the Hanging rock is over 300 feet?

A. I should judge it is over 300 feet; yes, sir.

Q. And what kind of soil is there through there?

A. Gravel.

Q. Gravel?

A. Yes, sir.

Q. Boulders?

A. No, sir.

Q. No boulders?

A. I didn't see any.

Q. Do you wish to be understood, as an engineer, that it would be practicable in the line of expense or feasible as a mechanical proposition to put up a power shovel to excavate that?

A. No; that is not what I want to be understood as saying. I mean to be un lerstood as saying that I can utilize power at that particular point.

Question read.

A. I would not say that; no, sir.

Q. Now, do you mean to be understood, as an engineer, to say that there is any place that you could get rock from in that vicinity; that you could use electrical power or any other power in the transporting of it?

A. Yes, sir.

Q. Where?

A. Right anywhere in the neighborhood. I would select the best place—the rock that would suit me to the best advantage.

Q. What would you do to do that?

A. I would put up a wire rope and then I would utilize it; have another travelling wire rope with it and travel over that and carry the rock from one point to the other.

Q. Yes. Now, how much power would it take to do that?

A. I do not know.

Q. Never estimated it?

A. Never estimated it because I——

238 Q. Now, the plain fact of it is, Mr. Cramer, that you never took into consideration the matter connected with that upper dam and this lower dam, did you?

A. I did not understand the question. If you mean did I take into consideration regarding the power, I say no.

Q. Now, you said you had made an examination of the river and had taken steps to ascertain what the flow of the water was in the year; is that right?

A. Yes, sir—that is, do you mean did I, personally?

Q. Oh, I understand, of course, you could not personally have done it, without it might have been for one year.

Q. Now, do you know what is the minimum flow of the river?

A. It is about 9,000 cubic feet at the mouth of the station there, but then I had taken that as the data from the United States.

Q. I understand that; of course, you don't know. Now, is that the average or is that the lowest record?

A. I think that is the lowest record.

Q. Can you tell—did you estimate what the average flow at low water was?

A. The average flow at low water?

Q. Yes; back for ten years or for any number of years.

A. No; I found the lowest, the minimum flow, that we really cared about.

Q. Well, do you know what the maximum flow of water has been during the ten years past?

A. Well, I found it, but I do not think it is correct.

Q. I mean from the Government reports.

A. Well, I don't think it is correct.

Q. Well, it is as correct as the 9,000 feet, to your own knowledge?

A. No; I think there are greater chances of getting it correct at low water.

Q. Think the chances are greater to get it correct at 9,000?

239 Did you make an examination of the books of the man appointed by the Government to measure the river?

A. Yes, sir.

Q. From that did you compute the average flow of low water for ten years?

A. Of course, I didn't care; that wasn't anything that I cared about.

Q. Do you know what the maximum high water has been in any year during ten years?

A. Well, only on general terms.

Q. I mean from that record.

A. Well, I don't remember; it was considerably beyond; I should judge, ten to twenty times as great as minimum, but I don't remember that. Of course, I wasn't particular about that part of it.

Q. Now, Mr. Cramer, did you make any plans for a flume there on the 60-foot level?

A. No, sir; there was no necessity for it.

Q. No plans here at all and haven't been?

A. No, sir.

Q. I understood you, in answer to your own counsel this morning, to say that in 1895 there was a mile of grade made upon the 60-foot level; you didn't mean that?

A. The sixty; no, sir.

Q. If you said that, you were mistaken?

A. If I said that, I misunderstood it—that is, it was 1896; it wasn't done in 1895.

Q. Now, Mr. Cramer, in order to build a dam at Hanging rock, would it be necessary to remove any of it?

A. Any of the Hanging rock?

Q. Yes.

A. Yes, sir.

Q. What part of it?
A. The surface.
Q. How much of the surface?
A. That would depend entirely upon what we were doing; I couldn't tell until I saw it; have to get to good, solid foundation instead of shale.
Q. You never made any test to tell how much would have to be taken off?
240 A. No; I didn't want to do that until I had all the plans.
Q. Now, you say that at one time you ran a line up to Charleston. Is that correct?
A. That was not my understanding. I had been up to Charleston.
Q. You had been up to Charleston?

The COURT: That is what I understood the witness.

Mr. WEDGWOOD:

Q. I understood you examined the river up to Charleston?
A. Yes; and beyond that.
Q. With a view of power?
A. Yes, sir.
Q. Now, did you find any other place in the river where a dam could be built?
A. Yes, sir.
Q. Where?
A. Somewhere up in the neighborhood of Deer creek.
Q. What is the situation of the country up there, in regard to the river and with reference to the building of a dam there?
A. There is a good chance for building a dam there.
Q. A good chance for building a dam there?
A. I should judge, from casual observation. I never examined it sufficient to determine that.
Q. Just as good a chance as there is at Hanging rock, isn't there?
A. I could not tell that without further examination.

Mr. WEDGWOOD: I think, if the court please, that is all just at present. I would like to reserve the right to ask another question on cross-examination by and by.

241 Redirect examination.

By Mr. BROWN:

Q. If you have a dam at Deer creek, would you get the water of the North fork and South fork of the river?
A. No, sir.
Q. Which one wouldn't you get?
A. Wouldn't get either one of them.
Q. Would there be water enough for the purposes you wanted, then?
A. There would be a considerable difference. I could not say just how much.

Q. I wish you would speak a little louder.
A. There would be a big difference.
Q. You were, if any plan had been made for a dam at Hanging rock; what did you mean by plan?
A. Why, a draft showing the details. I say a regular plat, showing the details of just the size of your dam and everything—that is, with the particulars and such proportions as that.
Q. You didn't mean plan in the sense that it had not been planned and determined upon?
A. Oh, no, not at all.
Q. You spoke of the use of the temporary power. Would it be necessary or feasible to use power in excavating the reservoir, making it larger, as well as the sides?
A. You could use it for that also.
Q. Would that be of any advantage?
A. Certainly.
Q. What would you do with the debris?
A. Put it in front of the dam.
Q. What?
A. Put it in front of the dame.
Q. You were asked if at a certain time you made measurements of the Suhr or upper canal. Have you made measurements since that time?
A. Of the canal?
Q. Yes.
A. Well, Judge, I don't understand just——
Q. You know what the Suhr canal is—the flume?
A. Yes, sir.
242 Q. Have you ever measured the distance around it—well, no matter.
A. I don't understand just what you mean.
Q. Well, it's all right. That notice that he asked you about, you said you saw it on the stake at the 60-foot level?
A. No; I denied that.
Q. No; you denied that it was a copy?
A. Yes, sir.
Q. But you said you saw a notice?
A. Yes, sir.
Q. Now, what becau*se* of that stake and notice?
A. It was up there for quite a while, but it suddenly disappeared.
Q. Did you take it away?
A. No, sir.
Q. Or do you know anybody that did?
A. No; I do not know who did.
Q. I asked you on direct examination about when you fixed the site for the temporary dam.
A. The temporary—yes; the site.
Q. Of the temporary dam, and you answered—what is your answer to that?
A. That is the one in May, 1895?

Q. The one that you have got now. When did you fix the site for that dam?

A. Why, that was fixed at about the beginning of March, 1896.

Q. 1896. I asked you if before that time you had fixed any other place and you answered three-quarters of a mile down.

A. Yes, sir.

Q. Is that correct?

A. Yes, sir.

Q. I was told you wanted to correct that answer; that is all. I mean to take the water out of the river, not out of the flume.

A. Well, you see, I always consider where we are getting it out of the flume, as that is most important. When I answered that three-quarters of a mile below the present dam I referred to taking it out of the river. It is about 1,200 feet or so above the bridge.

Q. Where you proposed to take it out of the river?

A. Yes, sir.

Q. Into the flume?

A. Yes, sir.

243 W. B. SEARLE sworn for the defense.

Examined by Mr. BROWN:

Q. Mr. Searle, where do you reside?

A. Provo City.

Q. What is your business?

A. Civil engineering.

Q. How long have you been engaged in that business?

A. Since 1883, about 14 years.

Q. What classes of engineering have you been connected with—the kinds of engineering?

A. Well, railroad construction mostly, canals and reservoirs, some water works.

Q. Have you ever been in Mr. Nunn's employ?

A. Yes, sir.

Q. What?

A. Yes, sir.

Q. When did you first enter into his employ?

A. I done a little work for him in 1895.

Q. Whereabouts did you go to work for him?

A. I did two days' drafting here in the city for him in 1895.

Q. That was the first?

A. Yes, sir.

Q. When next did you do any work for him?

A. Later in the same season, the same year. I did two days and a half checking levels for him.

Q. Whereabouts was the work done?

A. In Provo canyon.

Q. Somewhere near this question that we are now considering?

A. Yes, sir.

Q. What time was it you checked the levels?

A. I think in November.

Q. What time?
A. I think in November.
Q. November, 1895, you checked levels for Nunn?
A. Either the last part of November or first of December.
Q. That was the first employment you did for him. Now, did you continue in his employment some time?
A. Didn't do any more for Mr. Nunn until March, 1896.
Q. March, 1896, was the first work you did up there to any
244 extent, except these two days checking levels?
A. That is all.
Q. When you went up there, March, 1896, what was the condition of the work? What had been done up there towards this plant business?
A. There was a canal line staked and cross-sectioned.
Q. There was what staked?
A. There was a canal line staked and cross-sectioned, about 3,000 feet long, I think. There were stakes of various kinds, showing the surface along the canyon there for a distance of two or three miles, evidently showing——

Mr. WEDGWOOD: Object to what it showed. Let him tell what there was.
A. All right.

Mr. BROWN:

Q. Just state what was done, what had been done—what you found there in addition to that canal line.
A. There were two distinct lines of stakes that I noticed.
Q. Where were those lines of stakes?
A. They were—one of them on the present line of the 60-foot level; one of them was below it.
Q. Was any on the line what is now called the temporary flume?
A. No, sir.
Q. That had not been staked then?
A. No, sir.
Q. But the Suhr line had been staked and the line below it?
A. Yes, sir.
Q. What did you go to doing—or, by the way, was anything else done? Have you stated all that was done?
A. What is that?
Q. Have you stated all that had been accomplished that could be seen?
A. Why, with the exception that the brush was cleared out I have stated all, and a path made along the canyon side where it was almost impossible to walk without grading a path.
Q. What did you go to doing the first thing when you got there, March, 1896?
A. Went to talking over the advantages of——
Q. (Interrupting.) Well, what work did you go to doing;
245 what outside work did you go to doing?
A. Preliminary lines for the present flume line.

Q. You ran that first?
A. Yes, sir.
Q. By the way, what date was that you began that preliminary line of flume?
A. March 24th.
Q. After you did that, what next did you do?
A. March 27th I commenced a survey of the 60-foot contour.
Q. How many men did you have at that time in all up there, now, you and others?
A. I had five men, and used Mr. Madden's laborers as necessary in cutting brush.
Q. That is what you had. Now, how many did you all have altogether?
A. At that time?
Q. Yes; the whole crew.
A. Twenty-five.
Q. That was March 27th, and March 27th you commenced running what—the contour line, was it?
A. It was running the 60-foot contour line.
Q. Oh, yes; the 60-foot contour line. How long did you continue on that?
A. Intermittantly until April 20th.
Q. What else was you doing at the same time?
A. Completing the location of the present flume line and getting the cross-sections staked.
Q. Did you at any time begin the work of running the contour line for the 85-foot?
A. Yes, sir.
Q. Reservoir?
A. Yes, sir.
Q. When did you begin that?
A. The actual 85-foot contour was begun on April 25th. Previous to that there had been a little work done there by myself in obtaining data; that is all.
Q. You had obtained some preliminary data before you actually begun the contour line?
A. Yes.
Q. Did you stick a stake at any time on the Hanging rock?
A. I stuck it above the Hanging rock on the 85-foot contour.
246 Q. Well, when was that stake stuck?
A. On April 25th.
Q. On April 25th. You say above it?
A. Yes, sir.
Q. What do you mean by above, higher up the river?
A. No; right straight up the side of the mountain.
Q. Right above at that locality?
A. Yes, sir.
Q. Only up from the river. What was on that stake?
A. It was marked "Water line of Provo Canyon reservoir."
Q. It was just 85 feet from the river, was it?
A. It was just 85 feet from the river at what has——

Q. (Interrupting.) Opposite the Hanging rock?

A. No, sir.

Q. It was on Hanging rock?

A. It was 85 feet above the level of the water at what has been given here in testimony as the Middle rock.

Q. Yes. Where did it set, then, with reference to the Hanging rock?

A. Exactly above it; about 18 feet higher than the top of the rock, if I remember right.

Q. Did you at that time prosecute—set stakes of the contour lines of the reservoir itself?

A. I did.

Q. What—how long did it take you to place them?

A. From April 25th until—when the last work done in fall was on June 6th, on that line.

Q. Won't you proceed in your own way and explain just what stakes you stuck and in detail give that work? Did you care to explain?

A. I first ran a line of levels up on the 85-foot contour line, going as far as what is known as the Simmons cabin, on both sides of the river. I then ran a transit line on the north side of the river. These stakes were set out at the points where every change in the contour would make an angle in line. I then ran a transit line from there on the north side of the river and triangled it with the points on the south side of the river which had been set, I think, in the same way, finishing to Simmons' cabin. I moved camp to
247 a man by the name of Hoovers, who had a house near Deer creek. I then continued the levels from there up and the transit line in the same way, though above that point the transit line was continued on both sides of the river without triangulation.

Q. Is that all? When you got through how easily could this contour line be seen?

A. The contour line could be seen by any one from the county road at almost every point. The cutting of the brush was very distinct, and every angle point was noted by a stake two inches by four inches or two inches by six inches and four feet long, marked plainly "Water line of Provo Canyon reservoir." There are about four hundred of them, I think, or a little more, in the canyon there.

Q. You took notes of the survey, of course?

A. Yes, sir.

Q. The other side have asked you to bring them into court. Have you done so?

A. Bring my notes?

Q. Yes.

A. They are in the room. Yes; I don't care to put them in. They are here for your use, if you want them.

Q. Since that time you made that reservoir, has the reservoir been mapped?

A. Yes, sir.

Q. Who did the drafting; did you?

A. No; I made the original plat. Mr. Buckler copied it.

Q. Sir?

A. I made the original map, most of it. If I remember right, Mr. Buckler copied it.

Q. You and Buckler, then, did all the work, did you?

A. Yes, sir.

Q. Look at this and see if that is the map of the reservoir.

A. Yes, sir; that is a correct map of that reservoir.

Q. Have you examined it since it was done in connection with your field-notes to see that it is correctly done?

A. Yes, sir.

248 Q. And that is a correct map?

—. Yes, sir.

Mr. BROWN: I offer that in evidence, gentlemen.

Mr. WEDGWOOD: No objection.

Map marked "Def'ts' Ex. 2, D. H. R."

Mr. BROWN:

Q. After June 6th how long did you stay in the canyon?

A. Until July 3rd.

Q. Is that all that you did there before September 15th? Have you been there since?

A. Haven't been there since July 3rd until I went up this spring.

Q. From June 6th until July 3rd what was the general work done there?

A. I was working at the latitudes and departures of this canyon line, of this reservoir line, and the triangulation, furnishing stakes for Mr. Madden to work to.

Q. What was Madden doing?

A. He was making the grade for the present flume.

Q. What other work was going on, if any, during that summer which you was there, from March until July, besides what you have described?

A. Making a plat for the grade for a flume on the 60-foot level.

Q. The 60-foot level; did you assist any on that?

A. I ran the levels and cross-sectioned a part of it.

Q. Mr. Searle, do you remember at one time some railroad men coming up there surveying?

A. Distinctly.

Q. Do you know when it was?

A. Not the exact date.

Q. How near?

A. About the middle of April.

Q. About the middle of April. Remember what work was being done at the time when they came?

A. Sir?

Q. Do you remember what work was being — at the time when they came; what work was being done by the power-plant people?

A. The grade for the present flume was being carried right along as fast as possible.

Q. Who was in charge of those men?

249 A. R. E. L. Collier was, so far as I know.

Q. What did they do first when they came?

A. They ran a preliminary line up the canyon to a point below the present dam site of the Hanging rock.

Q. State whether they utilized any of the lines which you had run or not.

A. Not at that point.

Q. Did they anywhere, that you know of, after that?

A. Above the Hanging rock, above, wherever my 60 foot contour line got near enough to the bottom of the canyon so as to be possible, they utilized it where it was convenient.

Q. Did you give Mr. Collier, in charge of those men, any information as to what you was doing up there?

A. Yes, sir.

Q. What was it; what did you say to him?

A. I called two of my men as witnesses and went to Mr. Collier and notified him of the dam site; that it was a dam-site location, and that after that a dam would be built there.

Q. Where did you tell him the dam would be built?

A. At the point indicated by the notice. A few days later I notified him of the location of the 85-foot dam.

Q. Where was that that you notified him of that?

A. The first notice was——

Q. No; when was it you notified him of the 85-foot location?

A. On June 1st.

Q. At that time you had your stakes pretty well up around it?

A. Yes, sir.

Q. The contour line?

A. The stakes were well around that by May 19th—nearly all. The only part that was finished after May 19th was the parts of the reservoir that extend back into the North and the South forks. The main canyon was finished on May 19th.

Q. What would be the difference between building the dam at Middle rock and building it at Hanging rock, as to the area covered?

250 A. The area covered would be less at Hanging rock.

Q. How much?

A. Eight hundred thousand square feet.

Q. Now, as to this particular land which has been described here. You have heard the description, I suppose, as a strip of right of way on the south side of the river over four forty-s—along the line of the river on what is known as the A. L. Murphy claim. State whether it would make any difference if that being submerged.

A. Yes; it would.

Q. That would be high and dry, would it, at the 60-feet dam placed at Middle rock?

A. No, sir.

Q. Then would it make any difference or would it be submerged just the same?

A. Why, it would be submerged just the same. The area of that land would be reduced by the amount that we went up the river.

Q. Would that part of it—or I am only speaking of the Murphy 160 acres?

A. Well, the Murphy 160 acres lays on down the river below the Middle rock.

Q. Putting the dam at Hanging rock—this particular strip then—would that be submerged or not at 60 foot?

A. Yes, sir; either way.

Q. Either way. When these men first came up there—these railroad men—about how many men were at work on the power plant, all told?

A. Oh, I think 45 or 50 men when they first came.

Q. Was you there when the railroad began the running of their lines south of the river?

A. No, sir.

Q. Well, you stated they were working north of the river altogether. Were they working north of the river above the place known as the Thayer place.

A. Yes, sir.

Q. How many men did they have at work there?

A. I think they had an engineer and four assistants.

Q. Of the engineering corps?

251 A. Of the engineering corps; possibly five.

Q. Did they have a grading outfit afterwards?

A. Yes, sir.

Q. How much grading did they do north of the river?

A. I didn't measure it; looked as though it was a hundred and twenty-five feet long; possibly seven or eight feet high.

Q. Are you familiar with the value of such work?

A. Yes, sir.

Q. Well, what was that grading worth?

A. Oh, I should think a hundred dollars, maybe.

Q. Supposing they run two lines, one north and the other south of the river from Provo to Charleston, a distance of twenty miles; mapped it, mapped it twice, once for each route. All of the grading that they did on the north side of the river and did on the south side of the river, you have seen that this spring, have you?

A. Yes, sir.

Q. (Continuing.) Did all the grading that had been done up there. What would you say the whole expense would be, everything in?

A. Oh, I think if they made a complete recognizance—put in transition curves and all and made a location of all of it—it would be worth a couple of thousand dollars to make it.

Q. And the grading, how much was that worth—all the grading?

A. Oh, I could not tell exactly, but somewhere in the neighborhood of eight hundred dollars; eight or $900.

Q. The whole thing eight or nine hundred dollars?

A. Yes.

Q. Mr. Searle, you say you have been used to railroad engineering. Is there any difficulty about running a line of road up Provo canyon so as to go above this reservoir site of the 85 foot?

A. A slight difficulty.
Q. What would be the difficulty?
A. Expense.
Q. Well, is there anything to prevent its being done?
A. No; no physical features.
252 Q. How much more would it cost to run it up there than to run it up the bottom of the canyon?
A. Oh, I think, twenty to $25,000.
Q. Is there any other difficulty or any other difference than that expense?
A. No, sir.
Q. An expense of an extra twenty or $25,000. How long have you been engaged in railroad construction? What has been your experience in it?
A. Well, I worked until the latter part of 1889 for the Santa Fe Railroad Company; construction all the time; 1889, I worked practically—in the early part of 1889 I worked practically for the same line, Gulf, Colorado and Santa Fe. The latter part of 1889 I was employed by a railroad company running preliminary surveys from here south into California; something that was never built.
Q. When you placed this——
A. (Interrupting.) I also made surveys for the Mercur railroad over here.
Q. When you put up this 85-foot stake was you acting under the instruction of any one?
A. Yes, sir.
Q. Who?
A. F. J. Cramer, I believe, gave me the direct order.
Q. Did you ever get any order from Mr. Nunn?
A. Mr. Nunn?
Q. L. L. Nunn; yes.
A. Mr. Nunn told me—he talked with me about it, and may have given me a direct order; I would not be certain.
Q. Tell what he said about it.
A. He said——

Mr. WEDGWOOD: We object to what Mr. Nunn said.

Argued to the court.

The COURT: Ordinarily it might not be admissible in this case and class of cases. The question of the intention of the parties—either party, I think—figures very conspicuously. I think that as Mr. Searle, it appears from the evidence here, was there as an important agent of the parties here—I think that he would
253 be permitted to answer the question. Answer the question. Take an exception, Mr. Wedgwood.

Mr. BROWN:

Q. Proceed. Tell what he said to you, Mr. Searle.
A. He told me that he must have the water stored behind the extra 25 feet in order to equalize the low-water flow of Provo river

and produce a sufficient amount of water at the low-water times to fill his flumes and produce the power he desired.

Mr. WEDGWOOD: Now, we move to strike it out as being absolutely incompetent and self-serving.

Mr. BROWN: Simply shows the intention of the man accompanying the act done.

Motion denied. Exception taken.

Mr. BROWN:

Q. How long before this stake was put there was this, Mr. Searle?

A. I can't give you the exact date, but it was his last visit to the canyon before I commenced this work, which was a very few days before.

Q. Just a few days before then is your answer?

A. Yes, sir.

Q. At that same time do you know whether it was decided to put the dam—or do you know when it was decided to put the dam at that point of the Hanging rock?

Mr. THURMAN: We object to that, as to when they decided to do it; might have decided ten years ago.

Mr. BROWN:

Q. Well, if there was anything this man had to do with it, I want to find it out. Was there anything said or done to you — regard to it, fixing the dam?

Mr. WEDGWOOD: We object to it as incompetent.

The COURT: Answer the question.

Exception taken.

Mr. BROWN:

Q. Won't you answer?

A. Yes, sir.

254 Q. What was it?

A. It was to proceed to map a reservoir there, and a general conversation in which they said they must have it.

Q. Don't care anything about the general conversation, but I want to know whether it was stated to you to map a reservoir with a dam at that point?

A. Exactly, sir; that is correct. I was given those orders.

Q. This second notice you gave to Collier about your 85-foot dam how long was it after you stuck your stake—your stakes—your 85-foot stakes?

A. Well, it was the first time I saw him after that; I can't tell exactly; as I remember it now, my answer was in error.

Q. Was what?

A. My answer given before was in error. I know it positively It was before May 19th.

Q. Well, about how long, should you say, after you stuck the stake?

A. Anywhere from a week to ten days; may have been less than that.

Q. Do you know what he was doing at that time?

A. Yes, sir—that is, I know what he appeared to be doing.

Q. Well, that is what I mean.

A. Running preliminary lines.

Q. How far along had he get when you told him that?

A. He had reached the Hanging rock or slightly above it.

Q. Was he on the north or south side?

A. The north side.

Q. Had any lines been run or work done south of the river at that time, when you told him of the 85 foot?

A. Not above the county bridge.

Q. Do you know—did I ask you—I don't remember whether I asked you or not—do you know when the railroad in this case first arrived up there at Thayer's?

A. Near the middle of April.

255 Cross-examination.

By Mr. WEDGWOOD:

Q. What date was it when you first went up the canyon in 1896?

A. I think March 21st.

Q. March 21st—what was the first work that you did?

A. Preliminary lines for the present flume construction.

Q. Where did you commence that, Mr. Searle?

A. At a point known in this testimony as Middle rock.

Q. Is that the Middle rock—is that it?

A. Yes.

Q. How long a survey did you make there from Middle rock?

A. 4,000 feet—6,000 feet to start with—preliminary level lines.

Q. You did that before you stopped?

A. Yes; run a temporary level line down there.

Q. When did you continue it on?

A. Why, beyond that point?

Q. Yes.

A. I never did.

Q. Further down the canyon?

A. I never did continue it.

Q. How long did it take to do that?

A. A day or day and a half.

Q. A day or day and a half; then what did you do the next day?

A. I cannot be exactly certain.

Q. Oh, generally?

A. But on March 27th—this work was started on the 24th—on the 27th of March I did some work under Mr. Cramer's direction, and put the notice at the 60-foot contour line.

Q. When did you go away from here—in 1896?
A. Well, do you mean up the canyon?
Q. No; when did you go away from Provo?
A. Well, where do you mean—up the canyon?
Q. No; away from Provo—away from this country.
A. On July 3rd.
Q. Where did you go?
A. I went from here to Telluride.
Q. How long did you stay there?
A. About 12 hours.
Q. Where did you go then?
A. Went to Trout Lake.
256 Q. How long did you stay there?
A. Made that my residence principally—principal residence from then until in about the first of February, this year.
Q. What was you doing there?
A. I was running lines, cross-sectioning, running lines for a flume grade and cross-sectioning on same and completing it; ran lines for water lines; ran lines for the Telluride water works.
Q. For what?
A. I said I ran lines for the Telluride water works and various lines in that section of the country.
Q. How far is that from Telluride?
A. 16 miles.
Q. Who was you working for?
A. L. L. Nunn.
Q. Where did you go to get your pay?
A. Went to him.
Q. Whereabouts?
A. At Telluride.
Q. Whereabouts in Telluride?
A. Whereabouts? Well, I don't know as I could tell you the name of the street.
Q. An office?
A. Yes, sir.
Q. Whose name was on the door?
A. No man's name on the door.
Q. No name on the door at all?
A. I don't think there is.
Q. Do you know?
A. My best recollection is there is not.
Q. Is there any name of any kind or any writing on the door of that office?
A. I think not.
Q. Are you sure of that?
A. Yes.
Q. You are; when did you come back here?
A. I came back here in February of this year; arrived on the 10th, I believe—9th or 10th.
Q. Been to work since that time?
A. Some.

Q. Where have you worked?
A. I have worked in Provo canyon and in the office here.
Q. Do any work here—what?
A. And in the office here.
Q. What office?
257 A. The office of L. L. Nunn, of the Telluride Power Transmission Company.
Q. Any name on the door?
A. Yes, sir.
Q. What is it?
A. Telluride Power Transmission Company.
Q. Why do you call it the office of L. L. Nunn?
A. Why?
Q. Why did you say this was the office of L. L. Nunn?
A. Why do I say so?
Q. Yes.
A. Well, he is the principal factor that I know in regard to the Telluride Power Transmission Company.
Q. Who told you to say L. L. Nunn when you was asked this question?
A. Never have asked me the question or anything about it until you brought it up.
Q. You just said L. L. Nunn of your own accord.
A. Yes, sir.
Q. L. L. Nunn's name on the door over here?
A. How is that?
Q. Is L. L. Nunn's name on the door over here?
A. No.
Q. Simply the Telluride Power Transmission Company?
A. Now, the principal reason I make that is that his name appears direct on all the checks I get in payment.
Q. That you are very sure of?
A. That I am absolutely sure of.
Q. Anything attached to his name?
A. No, sir; not when he signs it personally. When one of his agents signs it, the agent puts his name also.
Q. What is L. L. Nunn's business?
A. I believe he is engaged in mining and water power.
Q. Do you know where his headquarters are?
A. To the best of my knowledge and belief, it is Telluride, Colorado.
Q. Do you know what his principal business is there?
A. Yes, sir.
Q. What is it?
A. What is apparent——
Q. What?
258 A. What is apparent is mining and developments of water power and electricity.
Q. Any connection with the Telluride Power Transmission Company?
A. I think so.

Q. What is it?
A. I think he is manager of their affairs.
Q. Do the Telluride Power Transmission Company own any plant at all at Telluride?
A. Have they any plant?
Q. Yes; or near there.
A. Why, I think so.
Q. Do you know?
A. I don't know absolutely anything, except what I have been told.
Q. Now, Mr. Searle, we will go up Provo canyon a little while.
A. All right.
Q. How much flume has been built in Provo canyon?
A. I have not measured it.
Q. Well, do you know?
A. I know what the contract was, and it has been reported the contract was filled. That is all I know.
Q. Well, you know how much grade you made?
A. Yes.
Q. And there was three thousand more after you?
A. I made three thousand feet—I started the work for three thousand feet of grade.
Q. Did you ever run the line of it to the mouth of Provo canyon?
A. Yes, sir.
Q. On that same grade?
A. Nearly the same.
Q. What would be the gross fall on that grade at the mouth of Provo canyon?
A. A little over four hundred feet.
Q. You know the fall of the flume where it is constructed?
A. At present constructed?
Q. Yes.
A. Yes, sir.
Q. And what would be the net fall at the mouth of Provo canyon on that grade, deducted——
259 A. (Interrupting.) Why, something over 375 feet down into the bottom of the river.
Q. Something over 375 feet. Did you ever figure the capacity of that flume?
A. I think I have; I won't be certain about it.
Q. Did you ever figure how much horse-power would be developed by that flume at the mouth of the canyon here with that fall?
A. I did not.
Q. How long did you work along that grade?
A. Intermittantly from March 24th to July 3rd.
Q. When did you first see the railroad engineer?
A. About the middle of April.
Q. Is that the first time you saw him?
A. I think so.
Q. Didn't see him at all before that?

A. No; I heard of them, but I didn't see them.

Q. Now, what work did you do on this 85-foot level, except to run the contour line?

A. I put up stakes as directed in the United States directions——

Q. Yes.

A. Good stout stakes, two by four or two by six, plainly marked, showing what that survey was for, marked "The water level, Provo Canyon reservoir."

Q. When did you do that?

A. I did that right along with the work.

Q. When was that?

—. That was from April 25th to June 6th.

Q. Now, what else did you do, if anything, Mr. Searle, except to run that line?

A. Except to run that line?

Q. Yes.

A. During that time?

Q. Well, at any time afterwards; at any time until you went away.

A. I was carrying the final location of the flume out and putting in the cross-section stakes—grade stakes.

Q. I am asking you especially with reference to the 85-foot level of the reservoir now.

260 A. Nothing except to get the dam stakes for the width of the dam there and prospecting to see what the foundation was below.

Q. Now, did you take lines down from lines run across the river so as to get the depth of the reservoir and the shape of the sides?

A. I ran a line of levels right straight up the valley.

Q. Well, I will ask you this question, Mr. Searle, have you computed how much water a reservoir with the water line 85 feet will hold back up from Hanging rock?

A. Yes; but I haven't it here.

Q. Do you remember how much it was?

A. I remember approximately what it was for that portion of the reservoir designed to be drawn upon—the part above the 60-foot level.

Q. That is, the 25 feet?

A. Yes.

Q. How much would that be?

A. If my memory is right, it is something over 340 million cubic feet.

Q. 340 million, that would be a 25-foot depth of water?

A. Yes, sir.

Q. Well, did you make any computation as to the amount that the whole reservoir would hold?

A. I don't remember that I did.

Q. Never did?

A. But I made a—oh, yes, I remember making a rough estimate of it, but I don't remember what it was.

Q. Now, how did you arrive at this 340 million cubic feet? Just

illustrate it on the blackboard, if you want to. I want to know how you arrived at that and what data you had to arrive at it and how you did it.

A. Well, I don't know whether I can illustrate it just exactly, but you have got a reservoir running up here, and then you have got a line just inside of that (illustrating) running up and running out 25 feet. Now, the area of the outside lines within this portion, the inside line will represent the slope, steep slopes of the canyon, down 25 feet, and the area of the outside lines and the area of the
261 inside lines together, and take the average of that and multiply by 25 feet, will give that portion up to the 25 feet; will give it fairly accurate up to where the 25 feet runs out.

Q. Excuse me, Mr. Searle, a moment. (Draws illustration.)

A. All right.

Q. Yes; I understand you. You make the computation as a mathematical proposition. I want to ask another question: How do the sides—the figure I have drawn represents the canyon between the walls?

A. Yes, sir.

Q. And the line at the top represents the level of the water at 85 feet and line "A" is 60 feet?

A. Yes, sir.

Q. Now, how did you arrive at line "A" in making that computation?

A. Why, as my first work went up the canyon, every two or three hundred feet or every thousand feet I would make a notation in my notes of the slope, as it appeared to my eye, of the size of the canyon in which we were working. When we got through I took an average of it, an estimate of that slope, as represented that distance, which would be practically correct.

Q. Then you have no more accurate data than your eye as you went along for your lower area?

A. I have no more accurate data except at the point of ground where I took a cross-section.

Q. And when you figured the general area down to the dam, you had no more accurate data?

A. No.

Q. And all the notes that had been taken in regard to that 85-foot line or dam site has been taken around the outside of it?

A. No; I have got an absolute line of levels up the bottom of it.

Q. Up the bottom of it?

A. Yes, sir; from the dam site to the head.

Q. In the river bed?

A. No; up the valley.

Q. Up the valley?

262 A. A small portion—a small portion of it is river bed there; don't amount to anything for storage.

Q. That gives you the fall. How far back would that go, Mr. Searle, before it reached the level of the river or until the base line intersected the contour line?

A. Guess I will refer to this map, and I can tell you absolutely

Q. Yes; refer to that.

A. Well, it will run north to northeast, one-fourth; to the southeast, one-fourth of section seven, township four south of range four east.

Q. How many miles, Mr. Searles?

A. I believe that is township four.

Q. How many miles?

A. Why, it is not quite five miles, following the windings of the contours, or about five miles.

Q. That is on the base line?

A. It is 28,777.7 feet; that is a little over five miles.

Q. Then it will back—85 feet will back for five miles?

A. Yes.

Q. Now, what is the fall of the grade, Mr. Searle, for the first mile back of the dam?

A. Up the river?

Q. Yes.

A. Very close to ten feet to the mile.

Q. The second mile?

A. Ten or twelve feet. I haven't taken the levels exactly on the water there. They are taken up the valley.

Q. Just simply an estimate?

A. The levels are taken right up the valley. I can refer to the notes and see what they were at various points there; they are not particularly in miles.

Q. Now, Mr. Searle, you spoke about the 60 foot level. Did you do any work on that?

A. Yes, sir.

Q. When did you do it?

A. I commenced on that on the 30th day of March or the first day of April.

Q. Have you an independent recollection of that?

A. Yes.

Q. What makes you remember that date?

A. Looking up the dates in my notes recently.

263 Q. Then you have refreshed your memory by your notes?

A. Yes, sir.

Q. Now, what did you do on that 60-foot level?

A. I ran levels around the contour.

Q. Where did you commence, Mr. Searle?

A. Where did I commence?

Q. Yes.

A. At a point 60 feet above the water level.

Q. Well, where was that point?

A. That point that we have *have* designated here as Middle rock, and northwest of the Middle rock straight up the side of the mountain from that point.

Q. What do you mean by straight up?

A. Well, at right angles to the general course of the mountain at that point.

Q. Up the side of the mountain?

A. Yes, sir.

Q. Well, it will be going up the canyon?

A. Well, generally speaking here, Mr. Wedgwood, when we say we are going up the canyon, we are going in the direction or going through to Charleston, not otherwise.

Q. Yes.

A. Well, I don't mean that. I mean going up the sides of the canyon from the river, and a distance of 340 feet from the river, as I remember, at that time.

Q. I don't think I understand you, Mr. Searle.

A. All right. Here is the river (illustrating). Now, this notice that I speak of is right straight up the side of the mountain there.

Q. Yes; you don't catch my meaning; but supposing this is the point right here on the 60-foot level, at Middle rock, there is where you started this survey?

A. Yes, sir; there is where I started that survey.

Q. Now, which way did you go?

A. I went up the river.

Q. Up the river?

A. Yes, sir.

Q. How far up the river?

A. To a point about a mile beyond the—beyond a—be-
264 yond opposite to the South fork. I can best designate it that way.

Q. Now, how many miles would that be above Hanging rock?

A. Two or two and——

Q. (Interrupting.) What did you go up there for?

A. My first understand- was that that was what they wanted for a reservoir.

Q. What wanted for a reservoir?

A. That that was the level of the reservoir instead of the level of the canal coming from the reservoir. That order was countermanded.

Q. When was that order countermanded?

A. Just before April 25th, when I started on the 85-foot.

Q. Now, with a 60-foot dam and a flume out on the 60-foot level no water could be stored, could there?

A. No, sir.

Q. Simply a gain in elevation?

A. That is all.

Q. The same result could be accomplished by continuing the flume up the river?

A. Yes; cost more than the dam would, though.

Q. Cost more than the dam?

A. Yes.

Q. Do you know how much that flume would cost? Well, I will ask you now, how far up the river would you have to go to tap the river on that 60-foot level?

A. I would have to go——

Q. (Interrupting.) From that point where you started or from the dam?

A. Nearly four miles.
Q. Nearly four miles; and do you know how much that flume would cost a mile?
A. Well, the direct cost on contract would be about $10,600 per mile.
Q. Per mile?
A. The grade for that portion of it would be quite expensive.
Q. How much?
A. Quite expensive.
Q. Do you know?
A. Oh, I don't know; haven't cross-sectioned it.
265 Q. Well, then, when you say that it will be more expensive to build a flume, what do you base your judgment on? Why do you say that?
A. Why, simply because——
Q. (Interrupting.) Is it a guess?
A. No.
Q. Then, how much would it cost to build a grade for a flume?

Mr. BROWN: From what point to what point?
Mr. WEDGWOOD: From the point opposite Middle rock up to where it struck the river above.

A. Oh, they could build that for $10,000 a mile.
Q. Would it cost $10,000 a mile?
A. It might.
Q. Do you wish to be understood, on your judgment as an engineer, that it will cost $10,000 a mile?
A. There are some ugly points up there; yes.
Q. There are some very ugly points?
A. On that level.
Q. Now, Mr. Searle, that would make in all $88,000. Now, Mr. Searle, if a reservoir was put in there, either 60 feet or 80 feet——
Mr. BROWN: In where?
Mr. WEDGWOOD: At the Hanging rock—the wagon road would be submerged, would it not?
A. Yes, sir.
Q. There is a wagon road up Provo canyon?
A. Yes, sir.
Q. Do you know whether or not it is a county road?
A. Yes, sir; it is a county road.
Q. What would be the cost of moving that county road up above the 60 or 85 foot level?
A. Well, that will average three or four or five thousand dollars a mile.
Q. Wouldn't a county road up there cost as much as the flume bed?
A. No, sir.
Q. And why not?
A. Well, you can take advantage——
Q. What?

266 A. In running the county road you can take advantage of bad points, and you can get around rocks that in a flume bed represents a ten, fifteen, or twenty foot cut, and you can run the road over obstructions, and with a flume bed you have to go through the obstructions.

Q. A wagon road has to be wider than the flume bed?

A. Slightly.

Q. Now, Mr. Searle, you think four thousand would be the outside—$4,000 a mile?

A. Oh, yes.

Q. That would be four miles. Would you have to construct any bridge to go up over that 60 or 70 feet?

A. Yes; it might be; yes; have to do some work. There has been a road went up very near there; very good road, too.

Q. How much would you have to add to go up to the grade of the dam; how much longer would the road be?

A. To go up?

Q. If the dam was raised up 85 feet or 60 feet you would have to commence this side, wouldn't you, to raise?

A. Yes.

Q. How much longer would that make the road?

A. Why, they could get up there pretty nicely in three or 4,000 feet; well, we will say a half a mile.

Q. Three or 4,000 feet would be over a half a mile; that would make four miles and a half of road at $4,000. Now, would it cost any more, Mr. Searle, to build the grade for the flume up there than it did for this grade and the flume, the present flume, where it is now?

A. Yes, sir.

Q. How much more?

A. Well, as I told you before, that is indefinite.

Q. Well, your best judgment?

A. I think it will average double or more than double.

Q. Why?

A. Well, the first, in the four or five miles up there there is at least one mile straight of solid rock excavation, where the
267 rocks are perpendicular. There is at least one-fourth of the distance solid rock.

Q. Now, Mr. Searle, you have testified to Mr. Brown that it would only cost $30,000 ore to build the railroad up on the side hill.

Mr. BROWN: How much more?

Mr. WEDGWOOD:

Q. $25 or $30,000 than to build it down below. Now, you say it would cost double the amount to build a flume bed up there than what it would cost down below. Now, what makes the difference between the railroad and the flume?

A. I didn't say that.

Q. What did you say?

A. I said that it would cost double the amount to build that flume bed up the river from the Hanging rock to what it did down the river from the Middle rock, a flume bed; it will anywhere on the sides of the canyon above the Hanging rock—will cost a great deal more than it will down the river from the Middle rock.

Q. Now, isn't that same thing true with the railroad?

A. Well, the railroad absolutely; the railroad the same amount that they have got to do increased construction after they get above there on account of the solid rock formation.

Q. After they get above where?

A. Above the Hanging rock.

Q. Can't they run a railroad up that canyon for four or five miles above the Hanging rock with only an occasional cut in rock, and haven't they so run it—the lines?

A. I think they have got part of it on the side hill.

Q. Is there any rock cuts above there that you know of?

A. There is a rock cut on the side hill that they have been working now.

Q. How large a cut?

A. About 150 feet long or such a matter; it is 400 feet.

268 Q. Now, Mr. Searle, in building a railroad what two factors enter into it principally?

A. What two factors?

Q. Yes.

A. So far as engineering is concerned, alignment and grade, curviture and grade.

Q. Do you know the fall of the canyon from the dam down to the mouth of it?

A. Approximately.

Q. What is it?

A. Why, it is over 400 feet.

Q. Over 400 feet, and what is the distance?

A. A little over five miles.

Q. Over five miles; that would make—it is over five miles from the Hanging rock to the mouth of the canyon?

A. Yes, sir.

Q. How much over five miles?

A. Oh, so slight it don't cut any figure.

Q. What would that make the grade for a railroad to be?

A. Well, that would be something less than 80 feet to the mile.

Q. That would be something less than 80 feet to the mile. Well, tell me—figure it out.

A. Well, it would depend on how high above the river the railroad goes in the canyon.

Q. Well, I mean running up the river bottom.

A. If they go down the channel of the river, which they won't do—is very doubtful, but I would judge that up 25 or 30 feet, and possibly they might find it convenient to go in on the benches and come off high——

Q. (Interrupting.) Well, running up the canyon, I am asking

you; you know what the grade would be with 400 feet rise on five miles.

A. Well, that is a question that I can't tell you absolutely; I think it would be less than 80 feet to the mile.

Q. You know what per cent. it would be on a straight line, don't you?

269 A. Well, I say it depends on the per cent. they get there, which would be less than 80 feet to the mile.

Q. Well, what is the per cent. is what I want to know.

A. It would be about one and six-tenths.

Q. One and six-tenths?

A. That is without any compensation for curviture.

Q. Now, with a hundred-foot dam up there on a five-mile rise would make it just even five hundred feet, wouldn't it? What would the grade be then?

A. 500 feet.

Q. There is an 85-foot dam; the railroad would have to run above the level of the water, wouldn't it?

A. Oh, yes.

Q. Raise it a hundred feet, wouldn't it, above the natural fall of the canyon?

A. Yes.

Q. And what would the grade be—what per cent.?

A. Why, the grade then would come very close to two per cent., not quite two per cent., straight, without compensation.

Q. Going up straight, two per cent.?

A. But there ain't any hundred-foot-dam proposition, and, furthermore, my statement of over 400 feet was with the distinct impression that you had asked me the difference between the 60-foot canal level and the mouth of the canyon.

Q. Now, I want to add on—but, then, that would make it about 450 feet to get about 15 feet above the 85-foot level, wouldn't it?

A. My memory of that is that there is 416 feet from the mouth of the canyon to the 60-foot level. Now, for the bottom of the canyon it just takes 60 feet away or fifty feet away from it.

Q. Well, now, I want to get at the exact height of the grade above the 85-foot level; tell me how much it would be.

A. Well, the exact height of the grade above the 85-foot level would be from five to ten feet above it.

Q. Well, what would that rise be, then, from the mouth of the canyon?

A. About 456.

270 Q. Now, what would the per cent. of that grade be going up there on a straight line?

A. About one and $\frac{75}{100}$ths, or one and eight-tenths.

Q. About 1.75?

A. It ought to be.

The COURT: Here is some paper, Mr. Searle.

A. Well, I don't think the judge cares to have it figured out any more accurate than that.

Mr. WEDGWOOD:

Q. Well, I am going to ask to have it figured out.

A. All right.

Q. I will ask you before I forget it, Mr. Searle. Do you know how much a dam would cost 60 feet high at Hanging rock?

A. I do not.

Q. Well, you said it would not cost so much as a flume. You must know what the dam would cost, if it wouldn't cost as much as the flume?

Mr. BROWN: Did he say that?

Mr. WEDGWOOD: Yes. If you don't know what the dam would cost, what made you say that?

A. Well, general estimate.

Q. What is your general estimate?

A. The general estimate was that the cost of the dam would be slightly less than that. The reason for building the dam there wouldn't——

Q. Never mind; I am asking about the cost; I am not talking about the reason for building it.

A. All right.

Q. How much would it be, general estimate?

A. The dam there, 60 feet high, would cost in the neighborhood of $80,000.

Q. $80,000?

A. But it wouldn't cost so much to keep it.

Q. When did you make the estimate and from what did you make it?

A. On the amount of masonry and dam.

Q. How high—how deep down did you figure?

271 A. I think I calculated that we would find a permanent foundation at ten feet, on an average.

Q. At ten feet, on an average?

A. Across the bottom of the canal or stream.

Q. At ten feet, that would make you a height of 70 feet?

A. Yes.

Q. How thick did you figure it?

A. I don't remember exactly; I believe the lines of pressure on a 60-foot dam there would be about 68 or 70 feet wide on the bottom.

Q. How wide on the top?

A. Oh, twelve feet, probably.

Q. Ten or 12 feet?

A. Probably; yes.

Q. And how long on the top?

A. 412 feet.

Q. And how long on the bottom?

A. That I can't remember exactly; but it is in the neighborhood of 300 feet.

Q. Do you know where bed rock is on the bottom?

A. Where what?

Q. Do you know where bed rock is on the bottom?

A. No, sir; I don't.
Q. Do you know where it is on the side?
A. Yes.
Q. Down at the bed rock?
A. In the bed of the river?
Q. Yes.
A. No; I do not.
Q. At the level of bed rock, I mean?
A. No; I do not.
Q. Then it is only a guess with you, absolutely?
A. A pretty good guess.
Q. How much would an 85 foot cost?
A. That will probably double the cost of the 60.
Q. Cost double the 60?
A. Yes.
Q. How many cubic yards would there be in a 60-foot dam?
A. I do not remember exactly what there would be in it.
Q. Do you know; did you ever figure it?
A. Yes; I have figured it.
272 Q. How many in the 80; do you know?
—. Haven't figured that, either.
Q. Do you know how much has been expended on this temporary plant that has been spoken of?
A. No; not——
Q. (Interrupting.) You have heard the testimony here, have you?
A. Yes.
Q. Of fifty thousand dollars?
A. Yes.
Q. Now, I will ask you, Mr. Searle, if, in your judgment, as an engineer, it is good engineering or if you know of any precedent of spending $50,000 on a temporary work to build an $80,000 dam.
A. I never understood the $50,000 was spent altogether on that temporary work.
Q. Then this work was to be permanent that it was spent on?
A. No, sir; not that you refer to as temporary, but a large portion of that $50,000 was spent on the work of the permanent work.
Q. Well, now, how much of it; now, do you know how much of it?
A. I do not know.
Q. Then when you say a large portion you are merely making a guess at it?
A. Well, I know that the purchase of the Ferguson property there and the grading that was done on the 85-foot level and the engineering work that was done on the 85-foot level.
Q. Now, how much did the engineering work on the 85-foot level cost?
A. Well, it cost one-half of all the engineering work that was done there.
Q. Well, how much was it?
A. Oh, it wouldn't come very far from $2,500.

Q. Well, would it cost more money than it would to run the lines upon both sides of the river for the railroad from here to Charleston? Well, I guess we understand that, Mr. Searle.

273 A. All right; go ahead.

Q. How much money was spent in grading?

A. I can't tell you that. Mr. Madden can tell you that exactly.

Q. How much earth was moved?

A. Up to the time that I left there there had not been over a thousand yards of earth moved, if there had that. I don't know what has been done since that time.

Q. Was there more earth removed than there was on the Rio Grande work next to that?

A. In that work?

Q. Yes.

A. I believe there was nearly as much up to the time I left.

Q. Then that wouldn't cost over a hundred dollars, would it, if that is all the Rio Grande work cost?

A. That ain't what I said.

Q. What did you say?

A. I said seven or eight hundred dollars on all the work there.

Q. On all the work? Well, do you mean to be understood as saying that there was nearly as much earth removed there at Hanging rock as the railroad company moved all told?

A. I said on the 60-foot contour; I judged from what I could see of it that there was.

Q. That would be about $800. Now, what further has been spent there?

A. The lines on the 60-foot canal has been carried out, I understand, since I left.

Q. Well?

A. That I can't testify about completely.

Q. Well, the balance that was remaining after deducting everything that you have testified to here—I will ask you that question again, if you would consider it good engineering to build a plant of that size as a temporary plant to construct a work costing $80,000.

A. Well, I believe it would be good engineering to spend what they have spent there.

274 Q. For that purpose, I am asking you.

A. What they have spent there for temporary purposes I believe to be good engineering and good financiering.

Q. Did you ever know a precedent before of such engineering?

A. Yes.

Q. Now, I will ask you, Mr. Searle, what you would do with that temporary plant in constructing this 80-foot dam.

A. What I would do with it?

Q. Yes; what would you do with it?

A. Oh, I would operate power shovels with it and pump water up for——

Q. (Interrupting.) Well, just one thing at a time. Where would you operate power shovels?

A. On the canal and flume construction, of course.

Q. Whereabouts?

A. Along the side of the canyon after you get down here below Mr. Thayer's it runs out and is very nice land to build canal in. There was some flats up there that looked as though they would work very nicely.

Q. Now, how much of that power in horse-power would it take to run all the shovels that could be worked on that canal?

A. I don't think the river would furnish enough power to run all the shovels that we could get on them side hills.

Q. I mean in digging the canal.

A. Yes; if we wanted to dig it all in one day, they couldn't get enough electricity to do it.

Q. I mean practically how many power shovels could you use?

A. Well, I don't think they would want over a hundred-and-fifty-horse power, if they wanted that; but it is a good thing to get this plant in operation until they get trade. They have got to work up their trade in order to get any here, and can use this small one until they can get the other into operation.

275 Q. Yes; then, Mr. Searle, the straight fact of it is that this plant is ample for a large power, and until that was exhausted and until more was required is sufficient—isn't that correct?—and that would be the only need of a larger plant?

A. That is exactly the same proposition as if you give a man one egg for dinner he has got enough until he gets it eat up and wants more.

Q. That expense would not be necessary for the mere purpose of building an 80-foot dam?

A. I do not think it would.

Q. Then, as far as you know, they don't intend to use it and wouldn't be practicable to use it for any feasible benefit in building this other?

A. Yes, sir.

Q. Well, to what extent?

A. I think it would reduce the cost at least one-half to these people.

Q. You think it would reduce it one-half?

A. Reduce the cost of building the dam and the canal one-half; yes.

Q. That is your best judgment on it, is it?

A. Yes.

Q. Now, Mr. Searle, going down from the Hanging rock to the mouth of the canyon—you know that canyon pretty well?

A. Pretty thoroughly.

Q. Now, what proportion of it running down toward the mouth of the canyon on the 60 or 85 foot level is solid rock or just covered with shale?

A. On the 60 or 85 foot level from the mouth of the canyon?

Q. From the Hanging rock down to the mouth of the canyon.

A. Which do you want?

Q. I say what proportion of the wall of the canyon from Hang-

ing rock down to the mouth of the canyon is solid rock, in your best judgment?

A. Well, there isn't over ten per cent. on the 60-foot line
276 and not over 15 on the 85. I don't think there is that much.

Q. Not over 15 per cent. on the 85 and 10 per cent. on the 60?

A. And that would be materially lessened by not going clear through the last 1,300 feet.

Q. Now, what is the character of the balance of it?

A. Oh, it is loose rock and earth.

Q. Mr. Searle, what kind of a machine is a steam shovel? How much level ground does it occupy?

A. Does it occupy?

Q. Yes; if they could be used on that side hill?

A. Oh, not very much.

Q. Not very much? Ever see one of them?

A. I have seen them in use for a railroad grade.

Q. Well, how much space of ground do the base of them occupy?

A. Oh, it will handle all right on five feet. That won't occupy any more room than would a steam threshing machine.

Q. Well, how much horse-power would be required to operate one on the ten-feet grade?

A. I don't know, Mr. Wedgwood; I haven't had any actual experience with them.

Q. That is what I thought.

A. And I think you better call on the man who has.

Q. Well, you are testifying as to results here of the values and costs. I merely want to know.

A. You wanted to know what my opinion was and that is what I give.

Mr. BROWN: You brought that out on cross-examination.

Mr. WEDGWOOD:

Q. And I wanted to know how he got that opinion. How did they take out the bed of the present flume?

A. Principally with a pick and shovel; some teams.

Q. How long did it take to do it?

A. It took from the time they started, in the latter part of March, until the time that I left, the 3rd of July, and it wasn't entirely finished then.

Q. Do you know how much it cost to the foot?

A. I do not.

277 Q. Now, Mr. Searle, you say it would cost twenty-five or thirty thousand dollars more to build a railroad upon the side of the canyon, so as to run over an 85-foot dam, than it would to build a railroad in the bed of the canyon?

A. Yes, sir.

Q. On what do you base that estimate?

A. I base the estimate on this proposition, that from the mouth of the canyon to the top of the 85-foot dam the cost of building

upon the side hill will be nothing in excess of the cost of building down where their location is and the cost of putting the county road upon the side hill too; the combined cost of moving the county road and building their railroad down there will be as great as it would to put the railroad upon the side hill. When they get up to the top of the dam the increased cost of their railroad is from there to the head of the reservoir, the main portion of it comes on the side hill, in which they have made their location in the crossing of the South fork.

Q. Now, do you know of any railroads that are built on the side hill when they can run through the canyon, the bed of the canyon?

A. Yes.

Q. Where?

A. Most every railroad where the bed of the canyon comes down so low that the high water interferes with it; in fact, you don't need to go any further than the main line of the Rio Grande Western up Spanish fork.

Q. Now, you are a railroad engineer?

A. Yes, sir.

Q. Of considerable experience. Now, I will ask you where is the practicable route for a railroad, in the bed of the canyon here or upon the side of the cliffs?

A. I wish you would make that question a little bit different, Mr. Wedgwood.

Q. In your judgment as an engineer, locating yourself for the best interests of your employer, where would you have located?

278 A. I would have located part of the time, if there was nothing to interfere, on the side hills, and part of the time in the bed of the canyon.

Q. Well, you would keep as near the level of the grade at the bed of the canyon as possible, wouldn't you?

A. I would keep as near the grade that was absolutely clear from the high waters of the river reaching me as I could.

Q. Now, why would you do that, Mr. Searle?

A. Why?

Q. Yes.

A. Why, to take advantage of small places where I could make my grade with the cheapest material I could find. Simply a matter of expense.

Q. Simply a matter of expense?

A. Yes; I think the alignment would be as bad in the canyon—in the bottom of it.

Q. As it would on the side hill?

A. Possibly a little worse.

Q. Did you make any examination to see? Have you ever?

A. Have I ever made any examination?

Q. Yes; with a view to a railroad up the canyon—up along the canyon and down in the bed of the canyon?

A. No; but I know the absolute angles in the bed of the canyon

and on the side of the canyon, and could tell what their alignment would be at other places.

Q. You think there would be only ten per cent. more of rock-work on the wall of the canyon than there would be in the bed?

A. I did not say that.

Q. That is what I understood you.

The COURT: I understood him to say between the 60-foot and the 85-foot.

Mr. BROWN: On the canal.

A. That has got nothing to do with the railroad. I said on our canal.

Mr. WEDGWOOD:

Q. Well, I asked you as to the others. Now, I will ask you what proportion of rock cut there would be on the level to run
279 over the 90 foot dam and on the level in the bed of the creek?

A. I don't believe it would exceed ten or 15 per cent. more; don't believe it would.

Q. Then my understanding of the answer before was about right?

A. Well, that was right, but I didn't answer that question, Judge.

Q. Now, if the grade—if a railroad is required to exceed its maximum grade, is it an advantage or disadvantage?

A. Disadvantage. In this case they wouldn't have to exceed it.

Q. Wouldn't have to exceed their maximum grade; how do you know?

A. From Mr. Yard's statement as to what their maximum grade was.

Q. What would be the grade of a road to run up on the side hill over an 85-foot dam?

A. A straight grade through there would be one and——

Q. (Interrupting.) I am asking now—you say it could be built for twenty-five or thirty thousand dollars more than it could in the bed of the canyon?

A. Yes.

Q. And you say the grade cuts an important figure; now, I want to know what the difference in the grade would be, making due allowance for the compensated curves in both instances.

A. It would be about two per cent.

Q. What do you mean by about?

A. Less than two per cent.

Q. Do you mean to be understood as saying that a road can be built to overcome an 85-foot dam from the mouth of the canyon at less than two per cent.?

A. I believe it can.

Q. That is your judgment?

A. Yes, sir. The straight grade is 1.70. I don't believe the compensation amounts to more than $\frac{7}{10}$ths.

Q. Have you made any calculations on it?
A. No, sir; not exactly.
Q. Just a straight guess?
A. No; not just a straight guess.
280 Q. Well, what foundation is there to it if it is not a straight guess?
A. Well, the foundation is this: Their compensation is not to exceed $_{100}^{4}$ths of one degree of curviture, and the curviture in that canyon won't average through the whole five miles of it any seven per cent. curve; they may have 15 per cent. curves, but they will have one-half of it, at least, or more than one-half of it the straight lines to make up for it.
Q. Running up on the side of the cliffs?
A. Yes; running anywhere they are a mind to.
Q. On which side?
A. On the side they have made their location on or on the other side.
Q. Run on either side of the canyon there?
A. And not have a curviture that will equal a continuous seven-degree curviture from the mouth of the canyon to the dam site.
Q. And a grade not to exceed two per cent.?
A. And a grade not to exceed two per cent.
Q. Now, why is it a disadvantage to a railroad if they are obliged to go above their maximum grade?
A. How is that?
Q. Question repeated.
A. Why, simply for the reason that if they start an engine out with a certain train and at one point in that road it exceeds for a distance of—any distance amounting to anything—their maximum grade, or their minimum grade, rather—they can't exceed their maximum grade; their maximum grade is what their steepest grade is. If their engine stage was, say, 50 miles, and there was a little piece of two per cent. grade in it, it would control the train-loads.
Q. And it would increase the cost of operation, wouldn't it?
A. Yes, sir.
Q. Continually?
A. Yes, sir.
Q. Mr. Searle, you know where the survey was made, the one made just prior to the one that you made for this permanent
281 location there of the present flume?
A. The one just prior?
Q. Yes.
A. I know where the stakes were; just when it was made I don't know.
Q. That I ain't asked you. You know where it was?
A. Yes, sir.
Q. Where did that join the river?
A. Never joined the river, as far as I know.
Q. Where did the survey come up to the river?
A. Never came to the river.

Q. Or would it have come?
A. It would have come to the river at about Simmons' cabin.
Q. Did you ever see a stake there?
A. Yes, sir; several of them.
Q. How?
A. Several of them.
Q. Did you ever see a four-by-four stake set right by the bank of the river where the brush was cut?
A. I think you must be referring to a different survey from what I am. I am referring to the 60-foot Suhr level.
Q. Now, I am referring to one down near where the present plant or flume is.
A. You mean the canal survey. Yes; I saw that, too.
Q. See a four-by-four stake?
A. I don't remember seeing a four-by-four stake. I remember I saw where the brush was cut off; saw cross section stakes, which are mostly two inches square.
Q. Any mark on it?
A. Yes; they were marked, but not as I would mark cross-section stakes.
Q. What was the mark on that?
A. Well, they were all marked with a cut.
Q. Well, that stake right up next to the river?
A. I don't remember seeing the four-by-four that you refer to.
Q. Well, when you first went to work there, the first work
282 you done there, you worked from a point starting at about the place where those stakes that I refer to were?
A. I should judge I started from the point about where you are talking about.
Q. Yes. Well, was there a stake afterwards placed there?
A. How is that?
Q. Was there a stake afterwards placed there different from the one you worked from?
A. No; I worked from a bench-mark, which, I think, was about two *two* and a half inches square.
Q. Did you ever see any other stake there than that afterwards?
A. I don't remember of noticing it. I may have seen it without paying any attention to it. I never had to work from any other.
Q. How high was that from the river?
A. That stake?
Q. Yes.
A. Well—oh, I guess that was some 12 or 14, maybe 20, feet. I don't know just how high the water was. I never went down to the water.
Q. Did you ever see a stake put there afterwards at any time?
A. Did I?
Q. Yes.
A. I don't remember of noticing a stake which I thought had been put there afterwards.
Q. Don't remember noticing the mark on the stake, if any?
A. No, sir.

Redirect examination.

By Mr. BROWN:

Q. Just a question or two more, Mr. Searle. Some questions have been put to you about the propriety of putting this flume four miles further up the creek and taking out water there. If that was done, would it be necessary to have a dam at that point where the water come out?

A. Oh, a little one.

283 Q. If you wish to have storage to make the low water, so as to have uniform power the year round, a storage of 25 feet, you would have to have a 25-foot dam there?

A. Yes; have to have more than 25 feet of dam.

Q. Have to have more than 25 feet of dam; have to have 25 feet extra there, and if you should do that, how about the waters of South fork?

A. Couldn't get 'em.

Q. Would you have water enough then for your power, your scheme, your 10,000-horse power?

A. Would if we built a dam big enough to store all the water we wanted.

Q. And have you made any figures as to how much that would cost and how much reservoir that you would have to have?

A. I did at one time for nearly the same proposition.

Q. Have to be a large reservoir there?

A. Yes, sir.

Q. And a dam over 25 feet high. Can you tell us how big a reservoir it would have to be?

A. I could, but I can't tell exactly now.

Q. Well, could you tell approximately?

A. Yes; it would have to be at least large enough to—well, it would have to carry 1,500 million cubic feet of water.

Q. To do that it would have to be very much higher than the 25 feet?

A. Yes; you see, we lose the North and South fork entirely, and during the low water the North and South fork furnish nearly all the water of Provo river. Provo river is dry at Charleston; no water.

Q. And to get the reservoir high enough to get the stream there did you figure how high your dam would have to be?

A. When I proposed a dam up there for, I think, the 1,500 million that takes nearly 60 feet at that point.

Q. 60 feet of dam up there?

A. Yes; that is my recollection—57.

284 Q. Now, I am requested to ask you what flume did you run nearly to the mouth of the canyon. Is it the site of the 60-foot flume or the site of the present temporary flume?

A. Why, the work that I did to the mouth of the canyon was about on a line of the present 60-foot.

Q. I am told, while I stay up, that you stated you ran a line on

the present flume and found it had 400 feet fall when you got through.

A. No; I didn't intend if I did.

Q. You mean that that was the 60-foot?

A. Yes, sir. I never went but 6,000 feet on the line of the presen temporary flume.

Q. I want to ask you on how many contour stakes you printed the words you spoke of, "Line, Provo Canyon reservoir."

A. On every one of them.

Q. What is the fall of this river above and below this Hanging rock?

A. Below it runs from 60 to 80 feet to the mile; about 80 feet to the mile, and above from 10 to 12 feet to the mile.

Recross-examination.

By Mr. WEDGWOOD:

Q. From what did you base your estimate, Mr. Searle, that it would require 1,500 million feet up there at Deer creek? I suppose that is the place you refer to.

A. Why, a general estimate of how many months. I didn't base it on any absolute statement. I only know the comparative amount of water that comes in from the South fork and the general volume of the river, and knowing that and the low-water seasons of the river and the amount of water that it takes to generate 10,000 horsepower on that fall, I will make a very close guess as to what you would have to store.

285 Q. Did you ever make any estimate for a 10,000-horsepower dam anywhere?

A. That 85-foot dam was calculated to cover the deficiencies in the Provo river.

Q. I know it was calculated, but I am asking you what you made it from; through what kind of a discharge did you make it.

A. How is that?

Q. Through what kind of a discharge did you calculate it—what kind of flume, or whatever you intended to carry it through?

A. That was calculated through a flume, the construction of which was not mentioned, but the canal portion was figured by Mr. Cramer and myself, at our camp there, during some evenings last summer.

Q. What time in the summer?

A. Well, I won't be certain just exactly whether it was in April or May that we were talking—the first part of April or May that we calculated this out one evening. I believe that he made the calculations mostly for what the continuous line would be.

Q. Then, if he said he never made any calculations on that anywhere up there, why one of you is mistaken?

A. One of us is mistaken if he said so.

Q. Now, Mr. Searle, haven't you investigated this river pretty thoroughly before you was in the employ of Mr. Nunn?

A. Yes, sir.

Q. And isn't it a fact that you selected Deer creek as the most available dam site on the river?

A. Yes; that is right; not the most available—the best—from my point of view, but absolutely unavailable on account of cost.

Q. What do you mean by absolutely unavailable on account of cost?

A. I couldn't buy the reservoir above.

Q. You might not be able to; do you know what the reservoir above would cost?

286 A. Don't know; only know that it might be beyond——

Q. Beyond your individual——

A. My riches; beyond what I thought I could be able to do at that time.

Mr. BROWN:

Q. Is the reservoir above occupied by private lands?

A. Farms.

Q. Surveyed principally?

A. Yes, sir.

Q. And they would have to be disposed of before you could build any reservoir there at all?

A. I think they would.

Q. Unless they farmed it underneath the reservoir. That is all.

Hearing adjourned until Thursday, April 1st, 1897, at 10 o'clock a. m.

April 1st, resumed session.

W. B. SEARLE recalled for further cross-examination.

Examined by Mr. WEDGWOOD:

Q. Mr. Searle, if that upper mark there (illustrating) is what has been termed the 60-foot level, how far below that is the level of the present flume, perpendicularly, the second mark representing the present flume?

A. Well, the second mark can't represent the present flume; the present flume will be below the water level.

Q. How is that?

A. The present flume will be below the water level.

Q. Well, I am talking on the ground.

A. Yes, sir.

Q. As it exists now?

A. Yes, sir.

Q. I don't think you understand me, Mr. Searle. I don't mean that to represent the water—that is simply the side of the canyon?

A. Certainly.

Q. As it exists now?

A. Certainly.

Q. Well, I will put it in this form: How high above the level of the river, perpendicularly, is what is termed the 60-foot level?

287 A. It is 60 feet above the level of the river at Middle rock.

Q. At Middle rock?
A. Yes, sir; that is the low-water stage.
Q. Yes. Now how high above the level of the river at the same place and same stage of water is the present flume?
A. It is not above the level at all.
Q. Not above?
A. No, sir.
Q. The flume runs into the river. Well, Mr. Searle, then at a point where the present flume joins to the river, then the 60-foot level at that point is 60 feet above that. Is that right?
A. How is that?
Q. Where, commencing at a point or take it at a point where the present flume joins to the river?
A. Yes.
Q. The 60-foot level. Is it 60 feet above the present flume or 60 feet above the river?
A. It is more than 60 feet above there.
Q. I would like to understand that, Mr. Searle; I don't. Now, where the present flume comes to the river does it come at the grade of the river or is there a provision for a dam there?
A. Where the present flume comes to the river there is a provision for a dam.
Q. How high a dam?
A. To raise the water about 12 feet—11 or 12 feet; I have forgotten exactly which.
Q. 11 or 12 feet?
A. Yes, sir.
Q. Now, at that point above the height*h* of that dam how high is the 60-foot level?
A. Above the height*h* of that dam?
Q. Yes.

The COURT: You mean the top?
Mr. WEDGWOOD: The top of the dam; yes.

A. If I remember right, it is 58 feet.
Q. 58 feet?
A. Above the point where we now propose to put in——
288 Q. (Interrupting.) Then, if those two levels were taken out so as to run parallel with each other horizontally there would be 58 feet difference in elevation between them?
A. Approximately that.
Q. Now, Mr. Searle, I do not think I asked you what you did on the 60-foot level down the river from the point where you commenced; if I understood you correctly, you commenced to work on the 60-foot level on the 27th of March?
A. Yes; or right afterwards, or the next day.
Q. 27th or 28th?
A. Yes; the 27th I established the 60-foot level, and I don't remember whether I did more than that that day, but I immediately commenced work on it.

Q. Then, if I remember right, you said you went up the river on that as far as North fork and worked off and on?

A. No; I said I went 2,000 feet above the South fork *on* in that neighborhood, maybe—no, I said a mile—that is right, about a mile above the South fork.

Q. Now, did you do anything coming down the river from that point where you started, starting at Middle rock?

A. Later I did.

Q. Now, when was that?

A. I can't tell exactly; but it was in the first part of June, according to my memory.

Q. Now, what did that work that you did consist of, Mr. Searle, commencing at that point?

A. It consisted of running a line of levels from the Hanging rock down the river for about a mile, establishing the grade, and then running a transit line from it for a part of the distance, I think, about 2,000 feet, putting in the curves necessary to build the same flume that we have up there—the same style of flume that we have up there—and cross-sectioning the same for work.

289 Q. That is, you did the survey work for a flume bed the same as you have now?

A. Yes, sir.

Mr. BROWN:

Q. Where is that, above or below Hanging rock?

Mr. WEDGWOOD: This is below, Mr. Brown.

The COURT:

Q. Is this on the level with the *with the* 60-foot level.

Mr. WEDGWOOD: Yes; this is the 60-foot level below the Hanging rock.

Q. Now, when was the work on that commenced—on the construction of that flume bed—if it was at all?

A. Immediately on my making the cross-sectioning.

Q. Now, about when would that be—you commenced about the first of June?

A. Why, very shortly afterwards.

Q. Well, your best judgment, Mr. Searle, as to dates?

A. I cannot give that. My notes would show it, but it is before the 15th, I think. I am not certain about that. The date I haven't looked up, as I didn't think it would come in the controversy at all.

Q. You worked on the contour until the 6th, and the cross-sectioning was done afterwards?

A. I think so. I may possibly have done some cross-sectioning before the 6th. I did other work before the 6th besides the contour line of the 85-foot contour.

Q. Then the work of construction of this flume was commenced after you cross-sectioned?

A. Yes, sir.

Q. Then how much work of construction was finished then?

A. Up to the time I left in July I think about a thousand to 1,100 feet.

Q. Coming down from Hanging rock on the 60-foot level, that was the first work that was done on that, is it, Mr. Searle, in construction?

A. In actual construction?

Q. Yes.

A. I think so.

Q. And this was in the year 1896?

A. Yes, sir.

290 Q. Do you know whether there has been any construction done since you went away? You say there was a thousand or 1,100 feet done when you went away in July. Was there any more done when you came back?

A. I can't tell. The snow covered that part of the country, and I only could see what *what* I have seen there; looked as though there might have been a little done, but I don't know. They may have gone a mile further.

Q. Well, all I ask you is what you know.

A. I haven't seen it.

Q. Now, I want to ask you a question. I think I will have to take this map. Have you the reservoir map, Mr. Brown? (Exhibits map to witness.) Will you show me the North fork on there, Mr. Searle? This is the map introduced in evidence yesterday.

A. There is the North fork.

Q. It is marked North fork?

A. Yes, sir; plainly.

Q. Now, Mr. Searle, how far from the north side of the river would the waters flow back in this reservoir at a 60-foot level before it struck the level of the waters of North fork?

A. At a 60-foot level?

Q. Yes.

A. The North fork is——

Q. Figure on the blackboard if you have to.

A. Why, I just have to take a ruler, and I can tell you pretty close; a thousand feet.

Q. A thousand feet?

The COURT: Let me understand. The waters of the dam extend, you say, east?

Mr. WEDGWOOD: No. At a 60-foot level how far from the north bank of the river would the water as it stands now—would the water flow back before it struck the level of the waters of North fork?

A. How far is the North Fork drainage?

Q. Yes. Now, how far on the 85-foot level?

291 A. Well, that is given absolutely by the contour there; which is three inches and a half or not quite three inches and a half, which would be something over 1,300 feet. The North fork falls about eight feet to the hundred feet.

Q. Eight feet to the hundred feet?

A. That would bring the position of the 60-foot contour line

about 25—or about 300 feet or slightly over it away from our 85-foot contour. That is the only way that I can testify to that, and I think it might possibly be quite accurate.

Q. Now, I will ask you the same question in regard to the South fork. How far from the south bank of the river as it now exists would the waters flow back at a 60-foot level in South fork before they reach the level of the waters of South fork?

A. The South fork falls at the upper end about six feet to the hundred feet. That would be about 1,200 feet.

Q. About 1,200 feet?

A. From the river.

Q. From the river. Well, wouldn't that be more than North fork was? It seems to show so on the map, and you give it 1,300 feet on the North fork.

A. I said about a thousand feet on the North fork and about 1,200 on the other.

Q. And how far on the 85-foot contour?

A. It would be a little over 1,600 feet from the river.

Q. Now, what is the character of the walls of the canyon on the level of the 60 and 80 foot contour in South fork?

A. At the mouth of the South fork they are very precipitous.

Q. And rocky?

A. And rocky.

Q. There is a road up South fork, is there not?

A. There is a wagon road up South fork. I don't know whether it is a county road or simply a road made for temporary use.

Q. You know it is there?

A. I know it is there.

Q. You know it has been there for a great many years?

292 A. Yes, sir.

Q. And been used?

A. Yes, sir.

Q. Now, it would be necessary with the water raised to either one of those levels to build a road on the cliffs, would it not, in solid rock, almost a wagon road, if one is built?

A. Well, it is not solid rock very far within the contour lines of the 85-foot level.

Q. Well, but as far as the contour lines?

A. Why, certainly; but a wagon road don't want to be on the contour line; it wants to be slightly above.

Q. Slightly above?.

A. Yes.

Q. Now, how much would be the cost of building a wagon road up to South fork?

A. Why, it would be very slight, such a wagon road as they have got now.

Q. Well, with the water raised to that level, what is your best judgment?

A. How far do you want that to go?

Mr. BROWN: I didn't expect to make any objection, and I don't

care much about it, but I didn't go into that with this witness as to building the future reservoir at all, but if you want to examine him on it go ahead; I don't care.

Mr. WEDGWOOD: We don't insist on it at all, Mr. Brown, if you object.

Mr. BROWN: I don't care about it.

The COURT: If you have no objection, go ahead.

Mr. WEDGWOOD: Well, if the court would like to hear it.

Q. What would it be, Mr. Searle, about?

A. I would like to have you state from where and to where.

Q. Well, I will get at it. Strike that out, Mr. Reporter; we will come down to the dam.

A. Yes, sir.

Q. Now, Mr. Searle, the wagon road as it at present exists, the county road in Provo canyon, is on the north side of the
293 river, is it not?

A. Yes, sir.

Q. In order to connect with the wagon road at South fork, what provisions are made, if any, in this building for crossing the reservoir when filled with water?

A. Cross on top of the dam.

Q. Cross on top of the dam. Then, Mr. Searle, there would have to be a wagon road constructed from the south side of the dam up the river to South fork, and then up South fork until the waters of the reservoir and the South fork would strike a level?

A. Yes, sir.

Q. Now, from the map tell how long that would have to be.

A. 6,400 feet.

Q. About a mile and a fifth?

A. Yes.

Q. Now, Mr. Searle, what do these checks or hatches represent on that map?

A. They represent steep slopes.

Q. Then, this sixty-odd hundred, that would be on steep slopes all the way, would it not?

A. Yes; the sides of the canyon.

Q. Now, what would be the cost of building this wagon road, according to your best judgment, from those points?

A. Could build a fairly good wagon road over there for $2,000 a mile; build one like the present one in South fork for less than a thousand.

Q. $2,000 a mile?

A. To build a county road in there.

Q. You would expect to build a fairly good road, of course, I suppose?

A. We would have to.

Q. Yes. Now, what provision is made on this plat of this reservoir for the overflow waters?

A. The provision for the overflow waters is not shown on that plat, but it is made for a cut through the solid rock of the south abutment.

Q. Now, in building this wagon road, that would have to be bridged, would it not?

294 A. Yes, sir.

Q. How much would that cost?

A. Well, taken independently of all other work, it would probably cost nine dollars a foot.

Q. For how long?

A. Eighty feet to a hundred feet wide; but taken in connection with the work of building the dam it would be considerably less.

Q. Now, that wasteway would have to be of sufficient capacity to carry the whole river at high-water season?

A. Yes, sir.

Q. Would it not?

A. Yes, sir.

Q. How wide would that have to be constructed in the side of the cliff on the south side?

A. There is another provision for that, Judge, I think you want to make.

Q. How wide and how deep?

A. Yes.

Q. Well, I will let you fix that in your judgment as an engineer. With proper construction, how wide would it have to be? Fix your own depth.

A. Well, it wants a sectional area of 400 feet.

Q. Well, taking proper construction up there as you have seen it, how wide would it have to be? Use your own judgment as to depth.

A. I think it would have to be 70 or 80 feet.

Q. That would have to be bridged?

A. Yes, sir.

Q. Now, give me the cost of construction of the bridge.

A. I think——

Q. Well, you might give it in total, but give me the cost. Fix it any way you are a mind to, but give me the lump cost.

A. Seven hundred dollars.

Mr. BAILEY: If your honor please, it seems to me that this is taking up the time of the court on that matter unnecessarily.

The COURT: It might have been, but Mr. Brown said he

295 didn't object. It is not cross-examination. Are you through?

Mr. WEDGWOOD: I am not through, but I am willing to stop if the court says so.

The COURT: It was proceeded with on the waived objection.

Mr. WEDGWOOD:

Q. You say the provision for a spillway or overflow is not made on that map at all?

A. No, sir; it is not shown there.

Q. Then it is not a complete map for the construction of the reservoir, is it?

A. It doesn't give the details of construction.

Q. Well, isn't that one an absolute necessity in the reservoir?
A. Not in a proper filing map of a reservoir.
Q. Not in a proper filing map, but it would be in a map showing the complete reservoir?
A. Yes; that shows——
Q. Now, do you know——
A. (Continuing:) That shows the complete reservoir; represents just exactly what it was intended to represent.
Q. Do you know where a spillway would start and end—that is, where it would start above the dam and where it would end below the dam—from any survey that you have made?
A. The spillway has not been cross-sectioned.
Q. Has it been lined out?
A. No, sir; it has not been staked.
Q. Has it been lined out by instruments at all?
A. In what way do you mean?
Q. Have you gone over it, or anybody else to your knowledge, and run a recognizance of it?
A. How—of that spillway?
Q. Yes.
A. Yes.
Q. Did you go over the ground, walk over it?
A. Yes; I took levels up over it.
Q. When?
A. Some time in May, I think, or—yes; some time in May.
296 Q. Some time in May? Who went with you?
A. At this time?
Q. Yes. Who worked with you when you made that?
A. Fred. Kirkwood, Al. Boren, Frank Dusenberry, and Will. Leavitt.
Q. All four of them?
A. Yes, sir. I don't know whether all four were that day or not. Some part of the four were.
Q. What did you—what was the amount of fall from the level of the water of the reservoir to where the spillway discharged into the river below the dam?
A. That particular line of levels was not taken. I could tell you what the fall would be to within a half a foot.
Q. Well, you have answered my question, so far as I care *ti*. How long—how many feet would — be?
A. How long that spillway was?
Q. Yes.
A. I can't tell you exactly.
Q. Through what character of country—of soil or rock—would it pass?
A. Directly opposite the dam, through solid rock.
Q. And below through what?
A. That I cannot tell. I think it would be cut to the solid rock in construction, but it is doubtful.
Q. That is an estimate of yours, a guess, or——
A. That is an estimate.

Q. Now, what would it cost to build that?
A. To build that?
Q. Yes.
A. In solid rock it costs about eighty cents a cubic yard.
Q. Give me the gross estimate of the sum.
A. To build that spillway you would get it cheap for $4,500.
Q. $4,500?
A. Yes; when it is complete.
Q. Think it could be built for that?
A. Yes; could be built for a great deal less, but it is lined where it is necessary below.
Q. Now, coming back to this grade proposition—cost of railroad—for a minute. What would be the difference in cost between
297 a grade for a railroad and a grade for a flume, as constructed and laid out by you, over the same ground? What would be the proportion?
A. The difference in cost?
Q. Yes.
A. I believe the cost would be about the same.
Q. About the same; on what do you base your judgment?
A. The railroad grade is wider, but the railroad can take advantage the same as a wagon road, but not to the extent that a wagon road can; they can build over bad points by going up and down; as long as they don't exceed their maximum grade for any particularly bad point, they can do it. The flume grade has absolutely got to stay on the same line, no matter what the obstructions are in the way.
Q. Now, what would be the proportion of rock or earth to be moved under—in the same place between the two?
A. The flume, I think, will represent 60 to 65 per cent. of the material moved for the railroad.
Q. That is, the railroad would have to move from 35 to 40 per cent. more rock and earth for the same grade?
A. Exactly.
Q. For cuts or fills?
A. Exactly.
Q. Now, what radius is available as a curve for the construction of a flume?
A. What radius?
Q. Yes; what have you used up there?
A. Well, that don't cut any figure on a big flume.
Q. Well, I am just asking you that question.
A. What we have used there?
Q. Yes.
A. We have used a hundred and fifty foot radius; but I know that you couldn't use it on the flume for the 60-foot level.
Q. Flume for the 60-foot level; what radius could you use for a flume on the 60-foot level?
A. That I don't know; I am not conversant with the building of this; you had better put the contractor on the stand.

298 Q. What radius did you *youse*? You lined and cross-sectionee 1,100 feet. What is the least radius you used there?

A. Three hundred feet.

Q. Three hundred feet? Was the country so as to allow a radius of 300 feet very comfortably?

A. Not always; made a heavy cut there in one place there to make it.

Q. How heavy a cut?

A. Ran it 16 feet.

Q. Ran it 16 feet? Now, what radius is the least that is available for a railroad in proper construction, standard gauge?

A. What kind of a railroad, Judge?

Q. A standard-gauge steam railway.

A. That depends on the traffic.

Q. On what?

A. That depends on the traffic you intend to haul over it.

Q. Well, I mean a good, substantial railroad for ordinary traffic, up-to-date railroad.

A. Well, I will just illustrate to you.

Q. I ask you that you answer the question to the best of your judgment, without illustration.

A. All right, then, I will have to answer the shortest radius that I know of on a standard-gauge railroad.

The COURT: You can then afterwards make any explanation.

Mr. WEDGWOOD:

Q. What is your answer?

The COURT: Answer the question and then give your explanation.

A. 160 feet.

Mr. WEDGWOOD:

Q. 160 feet?

A. Now, I would like to explain.

The COURT: Go on.

A. The Mercur railroad has a curve with a 160-foot radius, but I don't know that they care to build any. If they are going to build a through line here, as talked of, to Colorado, they ain't going to build any Mercur railroad curves, and I wouldn't answer it for that.

299 If they are simply going to run a little branch line, as their map is filed shows, they can use Mercur curves on that.

Q. They can't use Mercur railroad curves on a through line?

A. No; they wouldn't do it.

Q. With ordinary cars?

A. With ordinary cars.

Q. Now, I will ask you this question, Mr. Searle: In ordinary, good construction of a standard gauge railway, as constructed at this day, what is considered the least practicable radius?

A. I think about 16 to 18 in this mountain country.

Q. Well, what would that be?

A. It is a little over 300 feet.

Q. A little over 300 feet. Then the flume and the railroad run practically with the same radius?

A. Yes; the large flume would possibly—might take small advantages on the radius that they could use.

Q. But the flume that was run was run with a 150-foot radius?

A. Yes, sir.

Q. Now, Mr. Searle, starting at Hanging rock, in Provo canyon, at a point not less than 15 feet nor more than 18 or 19 feet above the level of the river, and thence running up the river for 4 miles, or until the waters of the reservoir would strike the level of the river, and not approaching during that distance any nearer to the river than eight feet, what in your judgment would be the cost of constructing a railroad grade, standard gauge?

A. Not approaching nearer to the river than eight feet?

Q. Yes; I mean to the waters of the river.

A. You mean vertically?

Q. Vertically; yes.

A. Well, Judge, I never looked that over with that in view and I think I had better look it over before I assume to give any testimony.

Q. Then, when you answered yesterday that this railroad could be built up Provo canyon at a cost of not to exceed 25 or
300 $30,000, if it was built on the grade, from what it could cost alongside of the river, you hadn't examined the country to see what the cost would be in either place, had you?

A. Yes.

Q. Well, then, please tell me, from your examination of the country, what the cost of a road grade would be, as I have designated it to you here.

A. You draw that road on that map and I will tell you. I don't understand from your question just what you want.

Q. Just read him my first question, Mr. Reporter.

Question read by the reporter.

The COURT: It is necessary that the answer will be an approximation.

A. That is correct, but the gentleman has placed me on an estimate which I want to explain. The curves of a railroad as followed on the sides of that canyon—and as it would have to be in the best possible condition they could get in the bottom—will vary so slightly and the amount of material to be moved be so near the same amount that I can't state the difference between two lines without knowing the number of cubic yards of rock and earth to be moved on either one.

Mr. WEDGWOOD:

Q. Yes; you can state what is, in your judgment, an approximate result without having any definite data in your mind *which* which to derive those results.

A. That is correct.

Q. And that is the extent of your testimony and what you base it on in this case?

A. Certainly; I hadn't either run a line there or cross-sectioned it.

Q. Now, a word about the capacity of a dam at Deer creek. You answered Mr. Brown in redirect that it would take a dam 60 feet high at Deer creek to store 1,500 million cubic feet of water. Now, I will ask you, Mr. Searle, how high a dam it would require

301 at Deer creek to store 340 million cubic feet of water.

A. I cannot tell you.

Q. Now, how high a dam would be required at Hanging rock to store 340 million cubic feet of water at the bottom, not on the top? You said that that 25 feet on the top would store that amount. Now, how high would the bottom have to be to store that amount on the bottom?

A. Very close to 60 feet.

Q. Very close to 60 feet?

A. Possibly a little above or a little below.

Q. Have you ever calculated it?

A. Not absolutely, but the upper one-third of that ——

Q. (Interrupting.) Have you ever made any figures on it?

A. (Continuing)—of that form of reservoir will hold more than the lower two-thirds.

Q. Have you ever made any figures on that proposition?

A. On that direct proposition?

Q. Yes, sir.

A. No. That is a matter that everybody knows.

Q. Now, I want to ask you just a few questions in regard to your estimate on that dam. I didn't get them quite clear myself, as that may come in here hereafter. I wish you would place on the blackboard there, Mr. Searle, the width at the top of a dam at Hanging rock to hold water 85 feet above the level of the river.

A. Well, Judge, if you will just designate your dam I will tell you whether there is anything wrong in it, but there is fifty or a hundred different kind of dams can be put in there.

Q. Yes.

A. I haven't been instructed to build any particular dam in there.

Q. Well, I would like to ask you a few questions about it. Will you place a dam across the canyon the length or width of the water level between those two rocks?

A. Yes; there you are.

302 Q. Now the width at the level of the river?

A. I don't remember exactly about that.

Q. Now, just give the figures the other way; the distance from the level of the river down to bed rock.

A. That is unknown.

Q. Well, then, give it to your best judgment.

A. Well, my judgment is that it is irregular, but it will average about ten feet.

Q. Average about ten feet; all right. Now, how much does it cost to build a masonry dam—stone dam—per cubic yard?

A. I think it can be built in there for about four dollars a cubic yard.

Q. About four dollars a cubic yard. Now, what would be proper construction for a masonry dam there? How thick would it be at the bottom?

A. How high do you want it?

Q. Well, a dam there 85 feet above the water level and ten feet below.

A. Well, that is a matter of calculation. It would take an hour or two.

—. Well, what is your judgment as an engineer? You gave it. You have changed it since yesterday.

A. How is that?

Q. Have you changed it since yesterday?

A. No; I haven't changed it since yesterday. You didn't ask me that question yesterday.

Q. I think you said 65 feet, Mr. Searle?

A. On a 60-foot dam.

Q. Well, how much would it be on an 85-foot dam, then, or you may take it on a 60-foot dam now? It would be 65 feet, you say?

A. I think I said 68, and I believe that is about right.

Q. 68, and at the top 12 feet?

A. Yes.

Q. Well, now, will you please figure out the cost of that on the blackboard?

A. How is that?

Q. Please figure out the approximate cost of that dam on
303 the blackboard with this data that you have given.

A. Say, Judge, just be good now, and give me that block of paper there, and let me get it in proper shape.

Q. I want it on the blackboard.

A. Well, I say I want to get it in proper shape, and then I will put it on the blackboard. Why, I don't want to go and make a lot of figures on the blackboard here. I might make a mistake, and that would be a bad thing to do.

The COURT: Never mind.

Mr. WEDGWOOD:

Q. Mr. Searle, I don't want to mislead you; that 420 feet would be the 85-foot level. You gave that as the 85-foot level, didn't you?

A. Yes.

Q. Well, now, what would the 60-foot level be across the top?

A. Let's see; I don't remember what the actual measurement is. It slopes there about two to one.

Q. Well, what would it be across?

A. No; they ain't two to one; that would make a hundred feet less, and it isn't that much. It must be—the 60-foot level—about 330 or 340 feet.

Q. Well, just take that measurement then.

The COURT: You also wish, Mr. Searle, to put it on the board, do you?

Mr. WEDGWOOD: Yes.

The COURT: Take an informal recess for 10 minutes.

Recess for 10 minutes taken.

Resumed session.

Mr. WEDGWOOD: You may figure that out at noon, Mr. Searle?

A. All right.

Q. Mr. Searle, you testified that this map was correct?

A. Yes, sir.

Q. Now, will you please take your schedule or rule and from this map by the schedule tell us how much or how wide on the top it shows this dam to be?

A. It shows two or three different widths.

304 Q. You may give the various widths.

A. How wide on the top it shows this dam to be?

Q. Yes. Just give the inches.

A. Oh, well, I can't do it with this schedule. This schedule don't run down to inches.

Q. Well, give us, for instance, an inch and so much, then whatever it is.

A. It shows that to be one inch and a little over an eighth.

Q. That would be how much at what place—how many feet at what place?

A. That is on the 85-foot level. That shows that top of the dam to be 470 feet.

Q. 470 feet?

A. Yes, sir.

Q. Now, one more question in regard to the cost of construction and I am done: What would be the cost of preparing the sides and the bottom—that is, going down to bed rock and cutting the sides for proper footings and abutments—for a dam 60 feet high—I mean now everything, excluding the masonry, excepting the masonry work, in your best judgment—at that point, Hanging rock?

A. It is a very doubtful proposition; about three or four thousand dollars.

Q. Three or $4,000. Now, upon that map, is there any provision made for a fishway over that dam?

A. No, sir; it is not shown there.

Q. How long would a fishway have to be to go over that dam?

A. I don't know exactly; but the Utah statutes provide exactly what they have got to do. If you have got a copy of the statutes, I could tell you.

Q. They prescribe the grade?

A. They prescribe the grade and everything—the method of construction.

Q. What would be the cost, to the best of your judgment?

A. I haven't examined that particular thing.

Q. Haven't examined it? Now, Mr. Searle, you went up
305 the canyon on the 24th of March to work—in 1896—for the power company?

A. Yes—no; I went before the 24th. I did first field-work on the 24th.

Q. When did you first go up?

A. That I cannot remember exactly; some two or three days before. I think I went up on Saturday, and the next day was Sunday.

Q. When did you first see the engineers of the Rio Grande?

A. Some time in April.

Q. About what time?

A. About the middle of it, if I remember right.

Q. Where were they when you first saw them?

A. They came to Mr. Thayer's and requested board.

Q. That was the first time you saw them?

A. Yes, sir.

Q. Hadn't seen them in the field or in the canyon before that?

A. No.

Q. When was the first time that you heard that they were surveying a line from Provo or up the canyon?

A. Near the first of April; I cannot tell exactly when. I heard of them before I saw them.

Q. You heard of them before the first of April?

A. Yes, sir.

Q. Talked over in the camp, wasn't it?

A. Oh, generally some fellows would come by and say, "The railroad engineers are at work down below."

Q. People passing up and down the canyon every day?

A. Any quantity of people.

Q. And would stop and talk with you; some of them would pass a word with you?

A. Oh, yes; some that I knew. Some of them that I didn't I didn't talk to.

306 Redirect examination.

By Mr. BROWN:

Q. Did you hear of those engineers before you went up there to work?

A. No, sir.

Q. In the re-examination this morning you have been asked when you did work on the flume down, the 60-foot flume, running down?

A. Yes, sir.

Q. When did you first do anything on that flume; I don't mean whether you cut brush and built a flume, but when did you do anything on it; run a line or anything else; stuck a stake on it or anything else?

A. Under the employ of L. L. Nunn?

Q. Yes; on the 60-foot flume, on the 60-foot line below Hanging rock.

A. March 27th is when I first——

Q. (Interrupting). March 27th, what did you do on that day?

A. I went up and established the 60-foot level.

Q. What did you do to establish it?

A. I commenced at the river and flagged up with the level to that point.

Q. Put any stakes there?

A. Yes; put stakes.

Q. Notice or anything?

A. Yes; there was a notice put up there.

Q. Put a notice up on the 27th and stuck stakes establishing and showing where that 60-foot level was?

A. Exactly.

Q. What did you put the notice onto?

A. I put it on a piece of pine timber two inches by six inches by four feet, I think.

Q. In a conspicuous place?

A. Oh, yes; anybody could see it.

Q. Did you preserve a copy at that time?

A. No; I didn't; the chief engineer took a copy, but I didn't.

Q. But you didn't preserve it yourself?

A. No, sir.

Q. But you put it up; whose name was signed to it?

A. L. L. Nunn.

307 Q. Was he there at that time?

A. He was not.

Q. Anything said—he didn't see it, of course, when you say that he wasn't there?

A. No; he didn't see that.

Q. You simply put his name on because you was in his employ?

A. Yes; I put his name on by direction.

Q. Now, you drew the notice yourself?

A. I didn't draw up the formal wording of it; it was given to me. I fixed the date on, if I remember right. I did that.

Q. Who drew it up?

A. I don't remember who did.

Q. Cramer?

A. The information I had was from Mr. Cramer.

Q. All right. Your dealing was with Cramer on that particular occasion?

A. Yes, sir.

Q. Now, look at this and see if you think that is a copy of it. By the way, I will ask you if you know what became of the original.

A. It was there when I did my last work in July last year.

Q. Look at that and see if it is a copy.

A. I would say this was not an exact copy, as I remember.

Q. Well, all right, then, that is all of that. Now, I want to ask you another question: I would like to know if you can tell me

where the railroad engineers were on the 25th of April, when you put the stake on Hanging rock on the 85-foot level.

A. I cannot tell you. They were down the river somewhere.

Q. Were they above or below Hanging rock?

A. They were below it.

Q. I understood you yesterday to say that at the time you posted your stake they had got a little above—a little beyond you. Is that correct?

A. That is not correct.

Q. That is not correct. If you said that you didn't intend it so?

A. I remember the question. I understood it as to where they were in reference to our camp and Mr. Thayer's.

308 Q. Well, all right. I wanted to correct that if there was any misunderstanding; that is all I care to ask him.

By Mr. WEDGWOOD:

Q. You stated to Mr. Brown yesterday that you had run it to the mouth of the canyon—this 60-foot level. When did you do that; after you went into the employ of these people or before?

A. Before.

Q. That wasn't done in connection with these people in any way, shape, manner, or form?

A. No; not under their direction.

Q. That was done two or three years before, wasn't it?

A. Done in 1892.

Q. Did you ever work for the Telluride Power Company?

A. How is that?

Q. Did you ever work for the Telluride Power Transmission Company?

A. I have understood that I was working for them.

Q. You have understood that you was working for them; that is all.

F. J. CRAMER recalled for defense.

Examined by Mr. BROWN:

Q. Mr. Cramer, just look at that paper and see if that is a true copy of the notice that you furnished Searle to post on the 60-foot level.

A. Yes, sir.

Mr. BROWN: I offer that in evidence, Mr. Wedgwood.

The COURT: This is the notice spoken of yesterday when the other was withdrawn?

Mr. BROWN: Yes, sir—what?

The COURT: The other was withdrawn for the time being?

Mr. BROWN: It wasn't a true copy, he said; nearly the same, but it was different.

Mr. THURMAN:

309 Q. Mr. Cramer, this notice commences, "I hereby claim." Is that I or "we"?

A. "I."

Q. Did you copy it directly from the notice?

A. I copied that notice directly from the notice on the stake; yes, sir. I drew the notice on the stake from the copy that I had in my book.

Q. You are sure that is "I" and not "we"?

A. Yes, sir.

Q. Now, you say in the notice—do you wish to read this, Mr. Brown?

Mr. BROWN: I am going to put it in evidence. I have offered it in evidence.

Mr. THURMAN: I do not think there will be any objection to it.

The COURT: It will be considered then in evidence.

Mr. THURMAN: The notice offered by Mr. Brown reads as follows:

"I hereby claim for the purpose of constructing a reservoir all the land laying up this stream below the level of this point, and propose to use the same for a reservoir by the erection of a dam at this point so constructed that it will retain the water of this stream on a level with this notice.

I propose to use the water for agricultural and manufacturing purposes.

The water is to be conducted from this point to the mouth of the cañon and thence on the benches of Utah valley.

March 27th, 1896, Utah county, Utah.

L. L. NUNN."

Paper marked by reporter "Def'ts' Ex. 3, D. H. R."

Mr. THURMAN:

Q. Now, you say in the notice that the water was to be conducted from that point. That meant the point where the notice was placed?

A. Yes, sir.

Q. That was the top of the 60-foot dam?

A. Yes, sir.

Q. It was not to be conducted from a point lower than that?

310 A. No, sir.

Q. Will you please state how, then, the water raised to that point was to be a reservoir for agricultural purposes?

A. We always had in view of having something above it for a reservoir.

Q. You had here a reservoir designed to be constructed with a dam 60 feet high?

A. Yes, sir.

Q. That was the reservoir of which you was giving the notice?

A. Yes, sir.

Q. You proposed that the water should be conducted from the top of that dam?

A. Yes, sir.

Q. For agricultural purposes?

A. Yes, sir.

Q. Please explain to the court how that dam would make a reservoir of water for agricultural purposes.

A. Well, I can see that was the way it was written, but that is what I meant.

Q. Do you know who wrote it?

A. No; I do not.

Q. Who did?

A. Who did what?

Q. Who wrote this?

A. I wrote it myself; it was written at the dictation of Mr. Nunn, giving the general idea of what notice ought to be put on.

Q. As a fact, the water conducted from the top of that dam would not—would destroy the use of that as a reservoir for agricultural purposes, wouldn't it?

A. Yes.

Q. It would not be a storage of water?

A. No, sir; no storage.

Q. That is true, isn't it?

A. Yes.

Mr. BROWN:

Q. But if this had been placed at a point 25 feet higher up, without changing its language, it would have left room for a reservoir of 25 feet?

A. Exactly; yes, sir.

311 Mr. THURMAN:

Q. Mr. Cramer, have you the original notice with you?

A. I have the copy that I wrote.

Mr. BROWN: It is in a private book, no objection to your seeing that.

The COURT: He presented the memorandum book yesterday, but did not use it.

A. I have to make a little proviso. I changed that as "Utah county" and that as "L. L. Nunn" instead of W. B. Searle; otherwise it is a copy of it.

Mr. THURMAN:

Q. This is as you took it from the stake, is it?

A. I copied this; to explain, I wrote—there were two copies written, one by myself and one by Mr. Searle; they were fac-similes, excepting as to Wasatch county that was Utah county in one, and instead of W. B. Searle it was "L. L. Nunn;" otherwise they were perfect fac-similes. Mr. Searle wrote one; I wrote the other. We read them to each other so as to compare them, and which one wrote this one or the other one I don't know, or whether Mr. Searle did, but it was copied from that.

Q. The language here "I hereby claim," you intended to claim by this notice that ground, did you?

A. Yes, sir.

Q. That is right, is it?
A. I think so.

GUY STERLING sworn for the defense.

Examined by Mr. BROWN:

Q. Mr. Sterling, where do you reside?
A. Provo, at the present time.
Q. What is your business?
A. Civil engineer.
Q. How long have you been engaged in that business?
A. About eleven years.
Q. Whereabouts have you practiced your profession?
A. In Colorado and Idaho, Washington, California, and Utah.
Q. What class of business have you been engaged in; what
312 class of engineering?
A. Well, railroad work and hydraulic work, etc.
Q. Was your attention called to the operations up Provo canyon at some time?
A. Yes, sir.
Q. When first?
A. The first notice, except the notice I saw in the newspaper—the first notice—the first I heard of it was from Mr. Cramer down at—I was down at Goshen in the first part of January—about the 6th or 7th of January, I think, 1896.
Q. And he came there?
A. Yes, sir.
Q. Shortly after that did you go up to the works?
A. Yes; I went up to the works with him on January 9th, 1896.
Q. January, 1896, on his return trip you came back with him?
A. Well, he came first and I came right after.
Q. When you got up there, what did you find?
A. Well, I went over the—Mr. Cramer took me out and showed me the lines that the company had surveyed and showed me the lines of it with reference to my figuring on a flume for them.
Q. Yes.
A. He showed me a line—I don't know how to designate it exactly. It was about where a line came out of the river about 2,000 or 1,500 feet or something of that kind above the bridge, and that line, he explained to me, was for a temporary plant which they wished to put, and he showed me another line, which he said they expected to construct——

Mr. WEDGWOOD (interrupting): We move to strike out the conversation between them.

Mr. BROWN: I think it is competent to show what lines they constructed and for what purpose they were constructed.

Mr. WEDGWOOD: If the court please, we have no objection to him describing the line and telling what he done, but when he goes to tell what Mr. Cramer told him and what the purpose of it was, it is a self-serving statement, and it is immaterial and irrelevant.

313 Question and answer read.

The COURT: For the purpose of showing the intention of the parties, the objection will be overruled.

Exception taken.

Mr. BROWN:

Q. Proceed.

A. Well, he showed me another line, the upper line, and took me up to what, as I understand here—what I have heard here—is called the Middle rock, and he showed me up there an upper line, on which he said they expected to build a permanent line, and he wanted me to figure on a flume for this lower line.

Q. For the temporary line?

A. For the temporary line, with the understanding that as soon as that was in operation they would commence on the upper line, and I would have an opportunity to figure on that.

Q. How long did you remain there at that time?

A. I think I only stayed one day.

Q. When did you come again?

A. I came up there again about the first of March—some time after—between the first of March and middle of March.

Q. How long did you remain at that time?

A. Well, I was there, I think, for four days.

Q. And what were you doing there?

A. Well, I went up there with the expectation of meeting Mr. Nunn, having an appointment to meet him there.

Q. Did you meet him there?

A. No; he did not come.

Q. Did you look over the premises at that time, March 1st?

A. Yes; I ran over the line again.

Q. Was there any substantial change from the time that you first went there, and what had been done?

A. Well, there had been a little more brush cleared out; that was practically all.

314 Q. Some outer work like that?

A. Yes.

Q. Did you subsequently make figures on the flume—make estimates?

A. Yes, sir.

Q. When did you meet Mr. Nunn, if at all?

A. I met Mr. Nunn on the 27th or 6th of February at Salt Lake.

Q. Was that the place that you finally dealt with him?

A. Well, that was the first place that I dealt with him.

Q. Where else did you meet him?

A. I met him here and I met him up the canyon at the flume.

Q. Afterwards?

A. Yes, sir.

Q. When was that?

A. I met him up there some time, I think twice, in March, in the neighborhood of the 23rd or 25th, or somewheres along there, of March.

Q. Did he ask you to make estimates on a flume?
A. Yes, sir.
Q. For what purpose did he say he was to use the flume?

Mr. WEDGWOOD: We object to it.
The COURT: The same ruling.
Mr. WEDGWOOD: Take an exception.

A. Well, he told me that he wanted me to give him as low figures as possible, because it was—the flume that he wanted me to build now was only a small one in comparison with what they intended to build after a while, and give me—the substance of what he said was that the flume I was to build now was for this temporary plant, and that afterwards they expected to build a plant which would extend down the canyon to the mouth of the canyon.

Mr. WEDGWOOD: Now, if the court please, we move to strike it out as incompetent and irrelevant.
The COURT: The ruling made was simply for the showing of the intention. This is an important matter, the court thinks.
Mr. THURMAN: If the court please, we wish to say one thing.
315 The COURT: All right.
Mr. THURMAN: It is now evident that there was no immediate intention to build a dam at the mouth of the canyon. He says now I want to build a temporary dam, and at some other time hereafter we will build another dam or flume. Now, we maintain that water for no purpose known to the law can be appropriated in any such a way as that. In so far from showing an intention to proceed and appropriate, it shows an intention not to commence an appropriation at that time. For that reason we think it is clearly immaterial.
Argued to the court.
Answer read by reporter.
The COURT: In so far as the evidence is not in conformity with that which has heretofore been on that same subject, of course it should not be considered, but for the time being, for the purposes expressed, I shall let it remain.
Mr. THURMAN: We note an exception.

Mr. BROWN:

Q. Did he say anything there on the subject of what power he was going to create by it; what kind of power?

Mr. WEDGWOOD: Object to it as incompetent.
Mr. BROWN: I suppose it is the same question?
Mr. WEDGWOOD: Yes; I just want an exception.
The COURT: Answer the question.

A. He wished to convert it into electric power.

Mr. BROWN:

Q. Well, as a result of that visit, in that negotiation did you make figures for such a flume?
A. Yes, sir.

Q. Were they accepted? Did you make a contract with them?
A. Yes; finally made a contract.
Q. In writing?
A. In writing.
Q. And in pursuance of that contract in writing, what did you do?
A. I built the flume.
Q. And it is there yet; there now?
A. Yes; so far as I know.
316 Q. Describe that flume as you have built it.
A. Well, it is what we call a stave and binder flume and half round, about five feet deep and seven feet wide on the inside in the widest part; has a water area of 2,000 or 2,800 square feet on the grade there; that is a calculated capacity of 2,000 cubic feet per second, and that would be 12,000 cubic feet per minute, and it is laid on a grade five feet in 5,000 feet.
Q. Yes. How long is it?
A. 4,000 feet.
Q. How long were you building it?
A. Well, I started August 18th and finished December 5th.
Q. 18th of what?
A. August 18th.
Q. You started August 18th and all that time on the ground, were you?
A. From August 18th to December 5th practically all the time.
Q. On the ground. Was the lumber or the staves delivered there all dressed ready for use?
A. Yes; it came from Oregon all ready for use.
Q. All ready for use, and you finished the work right there on the ground?
A. Yes; erected the flume right there on the ground.
Q. With whom was that contract made?
A. L. L. Nunn.
Q. And he paid you?
A. Yes.
Q. With him individually?
A. Yes; him individually.
Q. How large a force of men did you have in constructing the flume?
A. Well, it varied from four to fifteen men.
Q. How large a force was at work up there while you were upon the ground?
A. Well, you mean all the time that I was connected with the work?
Q. All the men—not your men, but all the men, engaged in the power plant.
A. Well, when I was up there in April they had 30 to 40
317 men and when I was there in August and along in that time I think they had, counting all, about from 15 to 20 men, without counting mine.

Q. Yes; 15 or 20 without yours, and yours was in addition, and about the same force, all told?

A. Yes.

Q. When you went up in August, I suppose—or I will ask you were you to make the grade for the flume?

A. No. That was to be made by Mr. Nunn's force.

Q. You didn't contract for that?

A. No, sir.

Q. And of course when you got there in August that was completed?

A. It was all completed practically.

Q. I will ask you about that flume, if it is portable—that is, if it could be moved on to another site.

A. Yes; it could be taken up without doing any damage to it at all.

Q. Put higher up or lower down, as the case might be?

A. Yes.

Cross-examination.

By Mr. THURMAN:

Q. Have you got that written contract?

A. No; I haven't here. I could get it.

Q. Where is it?

A. Over at my house.

Q. How?

A. Over at my house, my copy of it.

Q. How is it signed?

A. L. L. Nunn and myself.

Q. What date?

A. March 25th, I believe. It was in the neighborhood of March 25th. I think that was the exact date.

Q. March 25th?

A. Yes.

Q. When was it he had the conversation with you about his intentions, etc.?

A. The first talk I had with him was the 27th or '6th or February. That is the first talk I had with Mr. Nunn.

Q. You say he showed you some lines. What lines did he show you?

318 A. I said Mr. Cramer showed me some lines.

Q. Oh, well; Mr. Cramer, what lines did he show you?

A. Mr. Cramer showed me the line that they had surveyed for a temporary plant—this lower line—and he showed me two or three intermediate lines and one which was apparently about 60 feet higher or something of that kind, which—the one that they said they intended to run down to the mouth of the canyon.

Q. Did you go over that line?

A. I went up to the head of it, and he showed me the flag lines along it.

Q. The flag lines?
A. Yes, sir.
Q. What were they?
A. Sticks about that high, with a little white flag on about that size (illustrating).
Q. Now, when was that?
A. That was about the 9th of January.
Q. Of January?
A. As I remember it.
Q. How many stakes did you see on the 9th of January on that line?
A. Well, we were up there at the head and could only see a little ways. The snow was very deep, and I only remember seeing three or four going down the canyon; couldn't see many more from that point under any circumstances.
Q. What kind of stakes were they?
A. Why, this red—just brush; pieces of brush about an inch and a half in diameter or an inch in diameter.
Q. How far were you away from them?
A. Well, I was in the road and they were up on the side hill. I don't know; about 200 feet, perhaps, or less; I cannot tell that.
Q. It was just like the other brush around there, was it?
A. Well, the only way—they were stakes standing straight up with white cloth on the top of them. It wasn't possible to confuse them with the brush.
Q. That was on the 9th of January. Do you know whether
319 that is where the line now is?
A. No; I haven't paid any attention to that since that.
Q. Do you know whether it is in connection with any line now staked out?
A. No; I do not know anything about any other lines except the ones that I saw that day.
Q. Now, where was that line, then? Give us a description of it with reference to the locality, so that we can identify it.
A. Well, as I told you, it was pointed out to me standing in the road.
Q. Where were you standing in the road?
A. Standing in the road in the neighborhood of the Middle rock, what they call now the Middle rock, and it apparently—that flag—those flags that I saw there were about—it is purely guesswork, but I should say 60 feet above the road.
Q. 60 feet above the road?
A. Above the river.
Q. At the Middle rock?
A. Yes; well above the river, 60 feet. It is guesswork as to the elevation; it was up on the bench.
Q. Where is the Middle rock from the Hanging rock?
A. About a thousand feet, I believe, below it.
Q. Below it?
A. Yes.

Q. You remember when you went up with Mr. Nunn?
A. Yes.
Q. What conversation, if any, did you have about railroad engineers?
A. When I first went up there with Mr. Nunn?
Q. Yes.
A. I don't believe I had any; I don't remember.
Q. Are you sure?
A. I say I don't remember it. I am sure I don't remember it.
Q. When did you first have a conversation with him?

Mr. BROWN: With who?

Mr. THURMAN:

Q. Mr. Nunn, about the railroad engineers.

Mr. BROWN: Have I examined him about any talk about
320 railroad engineers?
Mr. THURMAN: No; do you object?
Mr. BROWN: Well, I think it is not only not cross, but he says he don't remember of having any.
The COURT: No; I understood him to say he don't remember having any the first time they met.
Mr. BROWN: He don't say that they ever had.
Mr. THURMAN: I asked him if he ever had any; if you object——
Mr. BROWN: I don't think it is proper cross-examination.
The COURT: Ascertain if he ever had any.
Mr. THURMAN: I understand your honor to overrule the objection?
The COURT: If there is any such information I wish to have it.

Mr. THURMAN:

Q. Did you have any conversation with him about the railroad engineers and the work that they were going to do?
A. You ask me generally, in the abstract, whether I have had any conversation with Mr. Nunn about railroad engineers.
Q. I don't care whether it is in the abstract or not; have you had any conversation with him or not?
Mr. BROWN: What I understand he means to ask is whether this is these railroad engineers or railroad engineers generally.
Mr. THURMAN: I mean these engineers?
A. You mean the Rio Grande Western engineers; well, I don't remember of having any, except a couple of words the other day.
Q. Well, you didn't have any in those early——
A. No, sir.
Q. (Continuing)—days that you were with him?
A. No, sir; not that I remember of. I am positive that I do not remember anything of the kind.
Q. Did you have any with Cramer about these railroad engineers of the Rio Grande Western?
A. Well, at what time, Mr. Thurman?

Q. In some of your first visits up there?

321 A. Well, the first visits, as I understand it, you class them between the first of April and the first of January.

Q. What is that?

A. You put the time between the first of April or first of January and first of April.

Q. Well, I said the first time you had any conversation.

A. Well, the first conversation I had with Mr. Cramer at all was on January 6th or 7th; I had no conversation about the railroad engineers then. The next one was on the 9th. I had no conversation of the railroad engineers then, and when I say I had none I mean that I absolutely do not remember anything of the kind whatever, and on March 23rd—March 16th, along in there, when I met Mr. Cramer, I had no conversation in regard to railroad engineers there.

Q. How about the 25th?

A. The 25th of March?

Q. Yes, sir; when you was up there.

A. As I say, I do not remember—absolutely have no remembrance whatever of saying anything in regard to railroad engineers or anything of the kind with Mr. Cramer at that time.

Q. Well, the next time after the 25th did you have any?

A. Well, I have a general impression——

Mr. BROWN: Well, wait a moment. I haven't examined him as to any conversation with Mr. Cramer, except only the first one, I think, in January; the talk that he had with Cramer, along in the summer, about railroad engineers, would seem to me to be entirely not cross-examination and, at present, hearsay.

Mr. THURMAN:

Q. Well, we will withdraw that. Oh, yes; one question: The flume that you figured on, where was it to begin and where was it to end?

A. It was to begin in the neighborhood of the Middle rock and extend down the river. Now, I will have to ask you a question in regard to that: You ask me where it was to begin, or you ask me where it does begin?

Q. Where was it to begin?

A. When I made the contract?

322 Q. Yes.

A. It was to begin in the neighborhood of Middle rock and extend down the river at the end of my contract, 4,000 feet.

Q. Did it join the river at Middle rock or a dam?

A. There was to be a dam put in at the head of it, the head of the flume.

Q. How high was the dam?

A. Well, I didn't enter into the details of that, but as I remember it had to be—all I remember about it was this—I have to go into a little details—that the first time that I knew anything about that, had anything to do, we was to place the bottom of the flume about

two feet above the surface, the low-water mark of the river, and as the flume carried five feet of water practically, that would make it necessary to make the dam about seven or eight feet high in order to fill the flume.

Q. That was to go down the river and along the side of the canyon for what distance did you say?

A. For 4,000 feet. That was the end of my contract, the first contract.

Q. Now, that is the flume that you did afterwards construct?

A. Yes; there was some little minor changes made in the location.

Q. Was there anything there in the way of stakes or monuments to indicate where the dam was to be, the small dam, at your flume?

A. When I began the flume?

Q. Yes; or before; the time you made the contract; at any time.

A. Oh, there was brush cleared there all around up and down the river at different places.

Q. See any stakes?

A. Oh, yes.

Q. Dam stakes, the location of the dam?

A. Did I see any location of dam stakes at all? Now, is that the question?

Q. Yes.

A. Yes, sir.

Q. Where were they?

A. At Middle rock.

Q. I am talking about the dam you was to connect your flume with.

323 A. No; these stakes that I saw were not at the—I don't remember seeing any stakes at the Middle rock at that time; there was plenty of brush cleared there, but I don't remember seeing any stakes there.

Q. Was the dam located there at all at that time when you made your contract?

A. Yes; the head of the dam; it was definitely settled that we was to begin at the Middle rock.

Q. Well, did you see anything then at the Middle rock?

A. No; I say I don't remember distinctly of seeing any dam stakes—what you call a dam stake—at the Middle rock.

Q. Did you see any stake showing on it that that was the top of the dam marked that way?

A. At Middle rock?

Q. Yes.

A. No; I just said I did not remember seeing any stakes there in connection with the dam at all.

Q. Well, did you see any in any place marked that way, marked "Top of dam"?

A. Yes; I did.

Q. Where was that?

A. That was about 1,500 feet or so above the bridge.

Q. When was the last time you saw that?
A. Oh, it would be impossible to say, only in a general way; I went up the canyon there; might have been in August the last time I saw it.
Q. I understand, then, that was not the place where the dam that your flume was to connect with was?
A. No; that was not the place; they changed the line for the temporary work.
Q. First made the line down below that?
A. Yes.
Q. Then changed to above?
A. Changed to above.
Q. Is there where your flume is?
A. Yes.
Q. On the changed line?
A. Yes.
Q. Did your flume connect with the place where you saw this stake?
A. No.
324 Q. Above it or below it?
A. The stake, you mean, above or below the flume?
Q. Yes.
A. Below the flume.

F. J. CRAMER recalled.

Examined by Mr. BROWN:

Q. Did you hear the testimony of Mr. Sterling?
A. Yes, sir.
Q. What line was it that you pointed out to him upon which there was little flags, in January, 1896?
A. That was the—it was one about twenty feet below the 60-foot grade.
Q. Was the Suhr canal flagged at that time?
A. No, sir.

Recess taken until 2 o'clock p. m.

Resumed session.

W. J. MADDEN sworn for the defense.

Examined by Mr. BROWN:

The COURT:

Q. I don't remember your first name, Mr. Madden.
A. W. J.

Mr. BROWN:

Q. Mr. Madden, where do you reside?
A. My home is in Denver, sir.
Q. Have you temporarily been stopping in this vicinity recently?
A. Yes, sir.

Q. What is your business?
A. Hydraulic mining.
Q. How long have you been engaged in the business of hydraulic mining?
A. Over twenty years.
Q. That involved also that branch of engineering?
A. In a practical way, yes. I am not an engineer, though. I want that understood.
325 Q. Was you ever in the employ of Mr. Nunn in Provo canyon?
A. Yes, sir.
Q. When first?
A. In April, 1896.
Q. Did you go up the canyon at that time?
A. Yes, sir.
Q. What date in April?
A. The 4th.
Q. What particular branch of the work did you go there to do?
A. I went there under instructions from Mr. Nunn.
Q. To do what?
A. To construct a flume grade under the direction of the engineers.
Q. A flume what?
A. A flume grade.
Q. For what purpose was the flume grade to be constructed?
A. For the purpose of setting the flume on it.
Q. Was it stated to you whether that was to be a temporary or a permanent flume?
A. I understood it to be a permanent——

Mr. THURMAN: We object to it.

Mr. BROWN:

Q. Was it stated to you?

Mr. THURMAN: Well, we object to it and want an exception to it.
The COURT: Let him answer.

Mr. BROWN:

Q. It was so stated to you. That is what you mean by your understanding?
A. Yes, sir.
Q. Who by?

Mr. WEDGWOOD: We object to that.
The COURT: The same ruling.

Mr. BROWN:

Q. By whom?
A. Well, it was stated by several engineers.
Q. Well?

A. As well as by Mr. Nunn.

Q. Well, we will leave out the other several. When you went up there did you take anybody with you?

A. Yes, sir.

Q. How big a force?

A. I commenced with six men.

Q. How soon did you increase it?

326 A. Day after day, according as I found men to suit me.

Q. Commenced with six, and when did you increase it?

A. On the 7th and on the 10th, and so on.

Q. I asked what date he went there, didn't I?

Mr. WEDGWOOD: The 4th.

Mr. BROWN:

Q. The 4th, and increased it on the 6th, 7th, and 10th. What did you go to do with your men?

A. I started in to clean the surface of the grade designated by the engineers.

Q. What do you mean by cleaning the surface? What did you clean?

A. Cleaned off brush and burned it.

Q. Was there considerable brush in that vicinity?

A. Yes, sir.

Q. I notice the witnesses are all talking about cleaning off brush. There was considerable, was there?

A. Yes, sir.

Q. What line was it that you were cleaning brush on?

A. The line that the flume now rests on.

Q. The line of the present constructed flume is where you cleaned your brush, and then what did you go to doing?

A. I immediately went to excavating down to the level designated by the engineers.

Q. Who was the engineer that made the levels for you?

A. Mr. Searle.

Q. How much of an excavation was necessary for the flume?

A. It varied at different points.

Q. Well, how much was it in the largest point?

A. The deepest excavation that I made was slightly over 30 feet.

Q. How long did it take you to complete that excavation?

A. Along the whole line?

Q. Yes.

A. About three months.

Q. At the same time, during that part of the time that you was there, did you have other work in progress?

327 A. Yes, sir.

Q. What first in the order of time?

A. Well, outside of that grading, do you refer to other localities?

Q. Outside of that grading, what other work did you do up there?

A. I dont some grading on the——

Q. Did some what?

A. I did some grading on the higher level.

Q. What level was that?
A. I understood as the Suhr level.
Q. Is that the same as the 60-foot grade?
A. Yes, sir.
Q. What did you do to the Suhr 60-foot-grade line?
A. I excavated in the same manner as before down to the grade stakes, what the grade stakes indicated, but on a larger scale.
Q. During what months were you at work upon that?
A. I did some work in May and June.
Q. So that you had the two lines of work running at the same time under your direction?
A. Yes, sir; I divided my force.
Q. Part of your force was working on the present flume grade and part on the 60-foot? Anything done at the site of the dam at Hanging rock?
A. Yes, sir.
Q. What was done up there and when?
A. In June.
Q. In June?
A. I cleared off all the brush within a—within the lines of a hundred feet across the river, on both sides above the abutments.
Q. Above the abutments?
A. Yes, sir.
Q. What do you mean—above in the canyon or above on the side of the mountain?
A. Above as the water flows.
Q. Above the abutments did you do anything?
A. Immediately above the abutments, a hundred feet upstream.
Q. When did you begin work at the abutments?
A. Some time about the middle of June, I think, as near as I can remember.
Q. When did you say you began work on the 60-foot grade?
328 A. I did some work about the middle of May.
Q. Where did you do that? Did you do that clear up to the abutments?
A. Not at that time.
Q. Well, did you during the summer?
A. I worked towards the abutments from a point a thousand or 1,500 feet below.
Q. That is, you commenced a thousand feet lower down the canyon?
A. Yes, sir.
Q. And worked both ways; is that it?
A. Down below a point indicated by the stake on which the notice of location was placed.
Q. Yes; did you know anything about a stake being stuck upon the abutments or Hanging rock as a mark of dam?
A. Yes, sir.
Q. When was that stake stuck?
A. Somewhere about the last part of April.
Q. Was there anything upon that stake?

A. As I remember it, it was "Water line of Provo Canyon reservoir;" I think these were the words.

Q. "Water line of Provo Canyon reservoir." Which side of the river was that stake stuck?

A. On the north side.

Q. Do you remember seeing Mr. Searle making the contour line on that 85-foot level?

A. Yes, sir.

Q. Do you know when he completed it?

A. In the early part of June.

Q. Did you ever go up and down the canyon after he completed it?

A. Part way.

Q. I mean up above Hanging rock?

A. Up as far as——

Q. (Interrupting.) How easily or not could you see or discover these posts that Searle put along there?

A. I could discover they were plainly to be seen most of the way up.

Q. From what point?

A. From the county road.

Q. Going up the road, you could see them on either hand?

329 A. I could see them principally on the left hand.

Q. That would be the same side that the county road was?

A. Yes, sir.

Q. Could they be seen on the other hand also?

A. Yes, sir; I saw several of them on the other side when I looked for them.

Q. Now, what else did you do there?

A. I put in some prospect holes on the north side, above and below the 85-foot contour line.

Q. Prospect holes?

A. Yes, sir.

Q. What was you prospecting for?

A. I was prospecting for the purpose of ascertaining what amount of gravel or fill or wash—whatever I found that was available on the hillside—to wash down behind our dam when built—to fill up the bottom of the stream and bed of the canyon.

Q. What other work did you do?

A. I sank a shaft on the line of the dam site.

Q. What was that for?

A. For the purpose of ascertain-, if I could, where bed rock lay.

Q. Did you ascertain?

A. No, sir.

Q. Why not?

A. Didn't go down far enough.

Q. Did you sink more than one such shaft?

A. No, sir.

Q. Any other work done up there on the bed of the river?

A. Not in my time.

Q. Not in your time. How long did you remain?

A. My last day's work was done in the canyon on the 2nd of July.

Q. Now, have you stated the whole of the work that you did?

A. No, sir.

Q. Go on; state what else you did.

A. I built a bridge on the county road line over the line
330 of the flume, and made a fill of 200 feet on the lower side to carry the roadway—to carry the county road up to the height of the bridge.

Q. To carry what road?

A. The county road.

Q. Oh, yes.

A. And also a fill on the upper side, which was shorter, for the same purpose.

Q. Go on; anything else you did that you think of?

A. In addition to that, I excavated a large area above the bridge that I spoke of and up to the water's edge.

Q. (Interrupting.) Excavated what above the bridge?

A. A large opening for our inlet from the river; I say from the bridge it widened out up to the water's edge. I also cleared the brush on the far side of the river.

Q. What time of the year did you clear the brush on the other side of the river?

A. That would be in the early part of June.

Q. What was the object of that?

A. That was to give a clear idea of the contour of the ground on the far side; I mean on the south side looking from the north side. I also put some men to work upon the hillside to roll down rocks to see if they could fill the stream there and make it easy to build a dam.

Q. At what point were you to roll rocks in at?

A. Where we expected to intersect the flume with the river.

Q. Which flume?

A. The flume that we built or that I was making the grade for.

Q. The temporary one?

A. Yes, sir.

Q. Do you know under whose direction that post was set on Hanging rock at the 85 foot?

A. Under whose direction?

Q. Yes.

A. Well, I don't understand your question, Judge.

Q. Well, did anybody direct Searles to put that post up on the Hanging rock 85 feet above the water?

A. Yes, sir.

331 Q. Who was it?

A. L. L. Nunn.

Q. How long before the post was set?

A. Some two days, I think, or such a matter. Mr. Nunn was in on the 20th.

Q. You heard the direction?

A. Yes, sir.

Q. What was it?

A. The instruction was given to proceed immediately to survey a line 25 feet above the 60-foot level and to mark it with proper monuments right along.

Q. What for?

A. For a water line for the reservoir.

Mr. WEDGWOOD: What date was that, Mr. Brown?

Mr. BROWN:

Q. Two days before the post was stuck?

A. I think so.

Q. Two days before the post was stuck; did he say what his purpose was in putting it up there?

A. Yes, sir.

Q. What was it?

Mr. WEDGWOOD: We object to it; the same question.

The COURT: Yes; objection overruled.

Exception taken.

Mr. BROWN:

Q. Go on; tell what he said.

A. For storage purposes; above the point where we located to draw the water.

Q. Was there anything else that you did during that summer, from April to July, while you was there?

A. I furnished a portion of my men for the purpose of assisting Mr. Searle and his corps on a survey up the river.

Q. You did not superintend the work yourself on that?

A. No, sir.

Q. Now, was there any other work you superintended yourself—under your direction?

A. All the work I did is embraced in those points and at the different times

Q. Yes. Well, now, while you were there, do you remem-
332 ber an occasion of the railroad engineers for the Rio Grande getting up there with their work?

A. Yes, sir.

Q. When did they first come there to where you were working?

A. Something like a week or ten days, I think, after I got there.

Q. You got there a week before?

A. After I had established out-camp on the point.

Q. It would be somewheres near the middle of April?

A. Yes, sir.

Q. Do you know whether they had got there surveyed line up as far as Thayer's when you saw them?

A. No, sir; they were approaching.

Q. They were still below their with their survey, approaching it in a body?

A. Yes, sir.

Q. Did you have any talk with them?

A. I met one of the gentlemen, who was a stranger to me at the time.

Q. Who did he turn out to be?

A. One of the engineer corps, who applied to me with a view of getting board at our camp while they were within our neighborhood.

Q. Yes. What did you say as to accommodating him?

A. And I believe I said that I could accommodate him with board if he could supply his tents—his tents for his men.

Q. Did they finally board there?

A. No, sir.

Q. Where did they go to boarding?

A. They went to boarding at Mrs. Thayer's.

Q. Well, did you have any talk with the men any further as to what you were doing there or the people that you worked for?

A. Yes, sir.

Q. What the purpose of your being there—how soon after their arrival did you have a talk with them?

A. Oh, I met them casually, without any pointed conversa-
333 tion, until a time came when I had occasion to meet Col. Dodge, with—and several of his engineers with him.

Q. With whom was he?

A. Mr. Baxter was the only one I knew.

Q. Baxter and Col. Dodge; and did you have a talk with them?

A. Yes, sir.

Q. Do you know when that was?

A. It must have been about—on or about the 25th of April.

Q. What was the talk with Dodge and Baxter on the subject of your purposes there and what you was doing?

A. After being introduced by Mr. Baxter to Col. Dodge, the conversation on the railroad question come up. I remember distinctly that the Col. told me Mr. Nunn made him a very fair proposition, and that was to run his engines by electricity for the cost of coal, and I asked him if that wasn't good enough, and he said, yes; but that they always looked for something more.

Q. Any other talk with him at that time?

A. He asked me when we could supply power, and I answered, In July, as near as I could tell. Well, he said he believed we could supply power before he would require it, and I said to Mr. Baxter that we could. I says, "We certainly can run your engines all right; and he answered by saying that from what he heard that we had already demonstrated that fact.

Q. Anything else in that conversation on that subject, on the subject of your intentions?

A. Nothing more.

Q. Did you have any other talk with Baxter as to the location of your dam or your purposes?

A. Yes, sir; we had a conversation here in Provo.

Q. You and Baxter?

A. Yes, sir.

Q. What was it?

A. In regard—he asked me what kind of a dam we were going to build——

334 Q. (Interrupting.) By the way, I will ask you when was it?

A. It was pretty well advanced in my time here; I could not say as to just when.

Q. Let's see. Your time here ended on the 2nd or 3rd of July?

A. Yes, sir. It was after our interview with Col. Dodge.

Q. After that? Well, now, tell us what it was.

A. He asked me what kind of dam we were going to build. I said one of masonry. Asked me how we were going to allow the water—what we were going to drop the water on. I said it would have to be solid masonry of best possible construction.

Q. Anything said as to where it was to be?

A. That was decidedly understood. Whether it was spoken of at that time or previous to that I do not know.

Mr. THURMAN: We object to that and ask that it be stricken out. Motion sustained.

Mr. BROWN:

Q. Was anything said—what is the substance of it? you don't have to give the exact language—was anything indicated by you to him where the dam was to be?

A. Yes, sir.

Q. Where did you tell him it was to be?

A. I told him it was to be at Hanging rocks.

Q. Hanging rocks?

A. Or abutments. He asked me also—if I may go on——

Q. Yes; go on if there was anything else.

A. —what I dug those holes in the hillside for, and I told him the purpose just as I have stated a little while ago.

Q. One question further I want to ask you. You say you remember, when that stake was stuck, which direction it was. Do you remember at that time whereabouts the railroad men were in their work?

A. They were down between that point and Thayer's, along the canyon.

Q. On the north or south side?

A. On the north side.

Q. Had they brought their line beyond the Hanging rock?

335 A. Not at that time.

Q. So that when their line has passed the Hanging rock the stake was there?

A. It certainly was.

Q. And you know that?

A. Yes, sir.

Q. Do you know when they went over, across, and began running their line on the south side?

A. Some time, I think, at the end of June—that is, at the lower

end. I say them; the last time I saw them working there they were just immediately above the county bridge.

Q. When you left on the 2nd did you leave there on the 2nd or 3rd of July?

A. I left there on the night of the 2nd.

Q. The night of the 2nd. Had they reached these premises in controversy when you left there?

A. I am almost certain they had not reached there. It was a day or so before that I saw them down by the county bridge, and the brush is very thick on that side of the river. I do not think it was possible for them to get up in that time; couldn't say exactly.

Q. How thick was the brush up by the dam site, for instance?

A. Part of it was very thick and part of it was clear.

Q. Explain what you mean by very thick.

A. Well, up to six inches or eight inches in some places.

Q. Birch in there, this that runs up higher than your head?

A. Yes; perhaps there was. I am not acquainted with what they call the wood here.

Well, I take it the quality is immaterial here. I guess that all, gentlemen.

Cross-examination.

By Mr. THURMAN:

Q. When did you first go up there, Mr. Madden?

A. On the 4th of April.

336 Q. Hadn't you been up before?

A. No, sir.

Q. Had you been in Provo before?

A. No, sir; except to pass through on the railroad time and again.

Q. Did you stop in Provo at all as you went through?

A. One night.

Q. And what night was that?

A. The night of the 3rd.

Q. Of April?

A. Yes, sir.

Q. What was the first—when was the first conversation or negotiation you had with Mr. Nunn relative to this business?

A. Mr. Nunn wrote to me from some point—I don't remember where he dated his letter—to me at Red Bluff, Montana, to come down here and take charge of this work.

Q. Were you acquainted with him before?

A. Yes, sir.

Q. Don't you know where he was when he wrote you the letter?

A. I don't remember where he dated his letter from, I say.

Q. Tell you what the nature of the work was that he expected you to do?

A. I understood that from conversations with him in Montana.

Q. When did you have conversations with him in Montana?

A. In February.
Q. Last year?
A. Yes, sir.
Q. Did you have quite a talk with him there?
A. Yes, sir. I went from Denver with him to Montana.
Q. You made no arrangements with him to enter his employment at that time, did you?
A. I was in his employment.
Q. You was in his employment then?
A. Yes, sir.
Q. What were you doing then?
A. I went up to investigate the feasibility of putting in a flume on the Madison river.
Q. What was that flume for?
A. For the purpose of conveying water.
Q. For power or other purposes?
A. For power, electric power.
337 Q. How much experience did you say you had had in that business?
A. I said I was engaged in hydraulic mining for over twenty years, and incidentally in building flumes and other work connected with it.
Q. When were you first in Provo to stop over night, the 3rd of April?
A. I think it was the 3rd of April.
Q. Where did you stay?
A. At the Roberts house.
Q. Who was there that night?
A. Several.
Q. I mean of your—of Nunn's company?
A. Nobody.
Q. Nobody at all? When did you first see Mr. Cramer?
A. On the 4th.
Q. Where?
A. I met him on the county road, on my way up the canyon.
Q. When is the first time, if ever, that you saw him at the Roberts hotel?
A. I don't know when it would be.
Q. Ever see him there at all?
A. Yes, sir; several times during my stay here we met at the Roberts hotel.
Q. Did you see him in the month of April?
A. At the hotel?
Q. Yes.
A. I didn't go down much during the month of April and when I did come down it was on Saturday night, and I may have met him for all I know, not taking any particular notice to that.
Q. Now, Mr. Madden, you spoke of digging some holes up on the hillside. I didn't exactly understand the purpose that you stated those holes were dug for; prospect holes, you call them?
A. Yes, sir.

Q. What was the purpose of them?
A. The purpose was to ascertain what kind of soil we could get on these hillsides that would wash down by applying water to it.
Q. Where was that?
A. On the north side of the river.
Q. Where with reference to the Hanging rock, then?
338 A. Upstream from the Hanging rock, and up the hillside from the river bottom.
Q. What was you going to do with that material?
A. Fill in behind the dam, according as it was built.
Q. Fill in behind the dam; it was not for constructing the dam?
A. No, sir.
Q. To what extent did you propose to fill in behind the dam?
A. Fill in to the level of 60 feet.
Q. Entirely fill up the whole——
A. (Interrupting.) The whole level across.
Q. Level with the dam for 60 feet?
A. Yes, sir.
Q. As far up the river as that level extended?
A. No, sir; what level did you refer to?
Q. The 60-foot level.
A. No, sir; not by any means.
Q. Well, how far?
A. As far as would constitute perfect safety to resist all pressure against the dam.
Q. Well, you had some design as to how much that would be and how far you would go, didn't you?
A. Not any definite, fixed idea—put in until we found we had sufficient.
Q. Well, what, in your judgment, would have been sufficient; you as an engineer—you had some idea?
A. Well, four to one is certainly sufficient.
Q. What?
A. A grade of four to one is sufficient.
Q. Four to one?
A. Yes; a slope of four to one.
Q. That is the slope of this material filled in?
A. Running back.
Q. One-foot elevation, four-feet slope?
A. Yes, sir.
Q. That was to strengthen and to brace the dam—the idea was?
A. It was not to brace.
Q. Well, strengthen it?
339 A. Yes; to avoid any extra pressure that might occur; occur if it was left for a water fill in there.
Q. How far back would that take it so as to get it in the river?
A. About 240 or 250 feet.
Q. How—now, by what process did you propose to get that material into the river?
A. We had in view to wash it in by hydraulic process.
Q. Wash down the side of the mountain?

A. Yes, sir.

Q. So much of it as could be washed conveniently; that was the idea, was it?

A. That was the idea, to wash up on the mountain where the mountain was steep enough to carry it, otherwise to carry it in sluice boxes.

Q. Now, when did you dig those holes?

A. In June.

Q. About what time, as near as you can give it?

A. Oh, somewheres in the middle of June, I should judge. I cannot state positively the date. I am pretty certain it was in June, though.

Q. When did you commence to grade on the 60-foot level?

A. I did some grading there about the middle of May.

Q. How much grading did you do the middle of May?

A. Oh, I had some men to work, running about 25 or 30 men during the term I had them there—30 men's work.

Q. How long was that; for how long a time?

A. About 30 men's work, I said.

Q. Well, for how long a time?

A. Well, 30 single day's work.

Q. Oh, 30 single day's work?

A. Yes.

Q. That is the amount of work you did on that grade?

A. At that particular time. I had men working on it from that time until the time I left.

Q Did you do any later?

A. Yes, sir.

Mr. BROWN: Later than what?

340 Mr. THURMAN:

Q. Later than the time of this 30 days' work?

A. Oh, yes.

Q. How much work in all was done before you left there on the 60-foot grade?

A. Between twelve and 1,500 feet.

Q. You mean that many feet of excavation or that many linear feet?

A. Linear feet on the line of the grade.

Q. Was the grade perfected for that distance?

A. Yes, sir.

Q. The bed was made?

A. Yes, sir.

Q. When was the first work done on that grade, if you know?

A. The first work I done on it?

Q. Construction work?

A. About the middle of May.

Q. That was the first done by anybody, construction work, was it?

Mr. BROWN: You mean on that grade?

Mr. THURMAN: Yes; on the grade.

A. As far as I know.

Q. Well, you know whether there was any other grading work done there?

A. I never went all over the grade, all over the line.

Q. You were familiar enough with it to tell whether anybody else had been grading before, wasn't you?

A. To the best of my knowledge, there were not; but, as I say, I had not gone over the line.

Q. Well, I want to ask you now, from your knowledge of the work, if there had been any grading done before on that line, if you wouldn't have seen it.

A. I might not have seen it, but I more than likely would have been told of it.

Q. You are reasonably certain that there was no work done before you did that?

A. I am, to the best of my knowledge; that is what you call grade work.

Q. Did you have anything to do with running that—or, by the way, what was that work done for?

A. For the purpose of putting a flume on.

341 Q. What was the flume to be for?

A. Conveying water in it.

Q. For what purposes?

A. For the purpose of generating power.

Q. That is, on the 60-foot level?

A. Yes, sir.

Q. Do you know when the 85-foot level was located?

A. About the last days of April.

Q. Were you there?

A. I was on the ground close by when they started.

Q. What was that for?

A. For the purpose of a storage reservoir.

Q. The 60-foot level didn't contemplate storage purposes at all?

A. No, sir; that was the level the water was to be drawn.

Q. That was purely for power purposes?

A. Certainly; the water was drawn at that level.

Q. Yes.

A. And above that level was for storage purposes. As a matter of fact, it had to be above that level before we could draw it.

Q. Yes; and the 85-foot level was commenced, the location of it, in the latter days of April?

A. As far as I remember.

Q. Well, you was there when it was located, were you not?

A. I was on the premises, on either grade—either that or the lower grade.

Q. You had some instructions to locate that, didn't you?

A. I had knowledge of the instructions as given. I believe I was present when Mr. Nunn spoke to Mr. Searle.

Q. What did he say to Mr. Searle about the constructing of it, and when did he say it?

A. About the 22nd or 23rd of April.

Q. What did he say, Mr. Madden?

A. He instructed Mr. Searles to go on with the contour line at 25 feet above the grade known as the 60-foot level for the purpose of a storage reservoir.

342 Q. You heard that instruction given?

A. Yes, sir.

Q. Mr. Searles at the time was working on the 60-foot contour; had been working up to that time?

A. He was working on it.

Q. And Mr. Nunn on that date told him to go 25 feet higher?

A. Yes, sir.

Q. And run a contour line?

A. Yes, sir.

Q. Or locate a level. You spoke of sinking a shaft to find bed rock down at the dam site?

A. Yes, sir.

Q. At Hanging rock? What date was that, Mr. Madden?

A. That was in the latter part of June. The exact date I could not name.

Q. How deep dtd you go?

A. I sank about eight feet, as near as I can remember, when the water run me out.

Q. What kind of material were you in when you stopped?

A. Wash gravel.

Q. Didn't find any rock?

A. No, sir.

Q. Did you ever find bed rock at that place?

A. I never tried any more.

Q. Never tried any further?

A. Except to sink down a steel bar in the bottom of that hole.

Q. How deep did you sink that below the bottom of the hole?

A. Oh, four or five or six feet, or such a matter.

Q. You think in all you explored a depth of 12 or 13 feet?

A. About that.

Q. And didn't find bed rock?

A. Not with the point of the steel I did not.

Q. Don't know how far you would have to go to reach bed rock?

A. Not at that point. I don't have any knowledge of how near it was at that point.

Q. Well, a dam could not be constructed there without bed rock, could it?

A. Not the dam we propose to build.

343 —. And you have no conception of how deep you would have to go to find it?

A. Well, no, I don't; it can't be very deep from the appearance of the river—the bed rock can't be very far down there. That is only my judgment on the matter. I might have got into a hole where it happened to be deeper than other places.

Q. Did you say you built a bridge?

A. Yes, sir.

Q. Where did you build that bridge?
A. On the line of the county road.
Q. At what point?
A. At the point where our flume crosses the county road at the head.
Q. That is the lower flume?
A. That is the lower flume.
Q. The present flume?
A. The present flume.
Q. And was it above or below Hanging rock?
A. Below.
Q. When did you build that?
A. The latter part of June.
Q. Now, you say you told Mr. Baxter that a dam was to be built at Hanging rock?
A. Yes, sir.
Q. When did you tell him that, in your Provo conversation?
A. I would not be sure as to when; could not designate the date, but I remember the discussion.
Q. Was it before or after the engineers had reached that point where your dam was to be located?
A. As to that I could not say positively.
Q. You don't know when they did go up there, do you?
A. Yes, sir; I do: about the time they got there.
Q. Well, when did they get up there?
A. Got up there during May.
Q. During May?
A. Yes, sir.
Q. Well, can't you tell whether this conversation was before or after that?
A. Well, casual conversations are hard to remember; it has been——
Q. I know; I am not asking you as to that; I am asking
341 you as to the relative time, whether it was before or after that they were up there?
A. I am not certain of the time that we had the conversation.
Q. Before or after the engineers had reached Hanging rock?
A. I am not sure whether it occurred here in Provo or on the line at some particular time. I think it must have been here in Provo.
Q Tell him what kind of a dam you were going to build?
A. Yes, sir. I told him what would be required to be built; I told him solid masonry.
Q. Tell him the size and height*h*?
A. No, sir.
Q. Didn't give him any information respecting the size of the dam?
A. But the height*h* of 60 feet was talked of for the level of our flume.
Q. Well, who talked of that?
A. I did.

Q. Who to?
A. Mr. Baxter.
Q. What did you say to him?
A. In a general way I——
Q. Well, say what you stated to him.
A. Well, I don't know as I can.

The COURT:

Q. As near as you can remember.

Mr. THURMAN:

Q. The substance of it, if you can give it.
A. I cannot tell that conversation word for word, I do not think.
Q. Was that at the time *time* the concersation was had about the dam constructed at Hanging rock or was it at another time? Did you talk about the 60-foot flume at the same time as the other conversation?
A. I think so; I think it was a sort of general talk.
Q. You were here in Provo?
A. As I said, I was not sure as to whether it was this or at some other time which I mean.
Q. You were not arguing about your right to build a dam or anything of that kind?
A. No, sir.
—. Just casually talking as engineers about the work?
A. I talked not as an engineer, but as a man connected with the work.
345 Q. With the work, not undertaking to give any details; just the extent of what you were going to do.
A. No, sir.
Q. Or how high you were going to do it; just the general work?
A. Yes, sir.
Q. You spoke of excavating an opening to the water. Where was that?
A. That is above the bridge I spoke of; between the bridge and the river.
Q. Below the Hanging rock?
A. Yes, sir.
Q. You spoke of clearing some brush, I think, by the south side of the Hanging rock there.
A. Yes, sir.
Q. When was that?
A. That was in June.

Redirect examination.

By Mr. BROWN:

Q. Mr. Thurman asked you at considerable length what purpose the 60 flume was, and you answered it was for generating electric power, and he also asked you as to the purpose of the lower flume. Now, what was the difference in the purpose of those two flumes?

Mr. THURMAN: I beg pardon, Mr. Brown. I didn't ask him anything about that lower flume.

Mr. BROWN: Well, then, I will omit that part of the question. What was the difference in the purpose of the upper flume and the lower flume?

—. There was just this difference, that we could furnish water for irrigation from the upper flume which we could not from the lower.

Q. Any other difference?

A. A greater power.

Q. Yes. As to the permanency of dam, know of any difference?

A. The upper one was to be the permanent one, whilst the lower one was temporary.

Q. Another question I want to ask you. You were asked
346 about washing down the sides of the canyon in the reservoir for the purpose of getting gravel and other matters to put behind the dam, and you answered you was going to do that by hydraulic method.

A. Yes, sir.

Q. Where did you propose to get the power?

A. From the temporary construction.

Q. The temporary electric plant?

A. Yes, sir.

Recross-examination.

By Mr. THURMAN:

Q. How could you furnish water for irrigation in the upper flume and could not furnish it in the lower flume?

A. Because we were higher up, and could place it where it doesn't reach just now.

Q. Where would you furnish your water for irrigation?

A. Where required; on the higher benches of this valley.

Q. Wasn't that lower flume or your flume as it now exists able to bring water upon every foot of available land in this valley?

A. That I do not know; but we did not contemplate having that flume in existence after our upper flume was constructed.

Q. Yes; but that is not the question I am asking you. You say you could furnish water for irrigation by the upper flume and could not by the lower, and you spoke as though you knew what you were talking about. Don't you know that water carried out on that lower level would bring it on the highest point in this valley?

A. If it was brought out at the lower end, yes.

Q. Now, as a fact, your upper flume for irrigation purposes without that 25 feet added to it would be of no more use than the lower flume that you constructed would be for irrigation purposes, would it?

A. We don't expect it, as we didn't contemplate anything of that—the storage——

347 Q. (Interrupting.) Well, I am asking you as to the fact that you testified to Mr. Brown about; would that upper flume, without storage above it, be of any more service in bringing water down to the valley than that lower flume which tapped the river at its bed?

A. No, sir; it would not, inasmuch as we could not get the reserve supply without storage.

Q. Yes, sir; you have got to have storage.

A. Yes, sir.

Q. Now, as a matter of fact, your answer in the first place was correct, was it not, when you said that the 60 foot level was for power purposes exclusively?

A. I did not say exclusively; beg pardon.

Q. Isn't that what you said, that it was for power purposes?

A. Yes, sir; you didn't follow me any further and I didn't answer any further.

Q. Well, in any event, as far as irrigation is concerned, if you had indicated a desire to do so, you could bring out water in your lower flume as it now exists for irrigation purposes just as effectually as you can bring it out on the higher levels?

A. We didn't contemplate any storage in the lower.

Q. I say, if you had desired to bring out water for irrigation purposes, you can bring it out in your lower flume just as easily as you can in your higher flume. Ain't that true?

A. Well, I answered that by saying that we did not contemplate any storage.

Q. I am leaving out the storage question.

A. And we did not propose to bring water down there for irrigation purposes solely; it first had to be for power, and inasmuch as there was no storage capacity contemplated at the lower or temporary flume, we certainly did not speak of it in that respect.

348 Q. Well, now, then, let me ask you this question further on that: Your 60-foot flume, as contemplated, will not store or save one drop of water for irrigation purposes, will it, in that river?

A. Not without the storage capacity above.

Q. Well, I say without storage.

A. That is what I answered, sir.

Q. Then, as a reservoir for storage purposes, your dam of 60 feet without the other 25 feet—keep that in mind—is of no use whatever, is it?

A. For what?

Q. For irrigation purposes.

A. Certainly; we could not contemplate it in that way at all.

Q. Well, you can answer that yes or no, Mr. Madden.

A. I say no; certainly not.

Q. Yes; none whatever; so that the only way to get any benefit for irrigation purposes on your scheme as now contemplated you have got to have this extra height over the 60 feet for storage?

A. Decidedly so, and not only for that purpose alone, but for a uniform head of water to supply a uniform power.

Q. Exactly.
A. In low-water seasons.
Q. Now, then, having asked you these questions and got your answers I will go back and ask you one more: Is it not a fact, then, that the 60-foot level, the dam at that height, without any further height added to it, was solely for power purposes; isn't that true?
A. That would be true.
Q. Well, isn't it true?
A. Certainly it is true, if it stopped there, I say.
Q. Well, I am supposing it stops there—that is, for power purposes only.
A. For power purposes.

Redirect examination.

By Mr. BROWN:

Q. One question: You have testified that there would be
349 no water if it was used simply for power purposes and there was no storage; I would like to ask you whether water would be saved by running it through a flume through the canyon or not?
A. Water running in a flume is not subject to as much evaporation as what it is running through the river.
Q. The seepage and waste?
A. Well, seepage would be added.
Q. Yes, seepage. In that way you would save something, which you would have in extra water, of course. One question further: Counsel asked you about where these flumes were to go to. Were both flumes to go to the mouth of the canyon?
A. I never understood that the lower flume was to go to the mouth of the canyon.
Q. The electric works were to be up in the canyon?
A. Yes, sir.
Q. For the little power?
A. Yes, sir.
Q. The temporary power and the upper or permanent flume was to go to the mouth of the canyon?
A. That is as I understood it.
Q. So as to get the greater power and fall?
A. Yes, sir.

L. HOLBROOK sworn for the defense.

Examined by Mr. BAILEY:

Q. Give your name to the stenographer, please, Mr. Holbrook.
A. Yes; he knows it all right.
Q. You reside in Provo?
A. Yes, sir.
Q. When did you first become acquainted with Mr. Nunn?
A. I think about the 24th of October or September, 1894.
Q. Where did you meet him?

A. At the Knutsford, Salt Lake City.

Q. For what purpose did you meet him?

350 A. For the purpose of talking over the possibilities of establishing a power plant on Provo river.

Q. State, if you can, in general terms, what the substance of your talk with Mr. Nunn was.

Mr. THURMAN: We object to that as incompetent and irrelevant and a self-serving statement.

Mr. BAILEY: I ask that for the purpose of showing what Mr. Nunn's intention was.

The COURT: Answer it. The same ruling.

Mr. BAILEY:

Q. You can answer the question.

A. I met Mr. Nunn at the Knutsford, as previously stated, and he gave me briefly his purpose in this country; that he was examining the water-courses of it and Idaho, and had been up into Montana for the purpose of utilizing them, as they were now lying dormant, for power and irrigation purposes, and then the conversation went on to this place here. He also informed me, if I remember correctly, that he had a preliminary survey previous to that time of this canyon. I am not positive whether he said he had visited it or not, but I am sure he said he had some men here.

The COURT: What date was this, Mr. Holbrook?

A. I think it was September 24th, 1894, was the exact date.

Mr. BAILEY:

Q. What was the size of the power of Provo river reported to be?

A. Well, my recollection is that we could generate some 12 or 14,000 horse-power there.

Q. State what was done next by you in reference to this Provo Canyon enterprise.

A. I came home. I think Mr. Nunn came down with me. We drove up the canyon, looked the situation over. This was a day or two later in the same month, I think, of September, and a

351 few days later he sent down Mr. Mathis, who was here on the stand a day or two ago, who ran a few levels at that time, and on the 5th of October, 1894, we established—I did, as trustee for Mr. Nunn, L. L. Nunn—a notice in the canyon.

Q. Did Mr. Nunn give you any directions as to where, in general terms, that notice should be put?

A. He said to place that notice at some point in the river where we could get the greatest fall for the least distance in the river.

Q. You are familiar with the Provo canyon?

A. Yes, sir; quite familiar.

Q. State in general how the fall of the canyon is from the point designated as the Hanging rock, both above and below that point.

A. I think the fall is very much greater from the Hanging rock below than it is above.

Q. And at what point did you post this notice?

A. We established this notice, or posted it, near what is known as Cascade falls; about, I think, 150 or 200 feet above the county bridge, on the south side of the river, is where it was established.

Q. Did you caused to be recorded a copy of that notice?

A. Yes, sir; the same day, I think, that it was posted, is my recollection.

Q. Was the recorded copt identical with the notice that was posted?

A. Yes, sir.

Mr. BAILEY: We would like to introduce the copy of that notice that was recorded.

Mr. HARKNESS: No objection; read it.

Mr. BAILEY: That notice is as follows: Marked "Recorded October 8th, 1894, at 11 a. m., in Book 27 of Mining Deeds, page 86; J. E. Daniels, recorder of Utah county.

Notice.

The undersigned hereby declares and publishes as a legal notice to all the world that *that* he has a valid right to take, at or near the point where this notice is posted, further described as follows,
352 to wit, at the confluence of the stream that forms Bridle Veil falls with the Provo river, at about eighty yards above the bridge across said river, near Thayer's house, the waters of the Provo river, and convey the same by means of suitable dams, flume, and pipe line to a power station to be built near said river, and to use said water for the purpose of generating electric current for furnishing light and power and other beneficial uses.

Dated this 5th day of October, A. D. 1894.

(Signed) L. HOLBROOK, *Trustee.*"

Q. That is the notice you caused to be recorded and posted?

A. Yes, sir; that is my signature on it.

Q. Now, will you state, Mr. Holbrook, what you did for the purpose of appropriating this water—what was done under your direction?

A. Put men to work immediately, I think three men, right off, within a few days; came right down and hired two and sent up there from here; also employed Mr. Thayer, I think, while there at the time or a few days after.

Q. Mr. Thayer resided in the canyon near this point?

A. Yes, sir; near this point.

Q. How long was Mr. Thayer employed in the canyon under your direction?

A. I paid him monthly, I think, until July or August, possibly as late as September, 1895.

Q. Did you pay Mr. Thayer yourself?

A. Yes, sir.

Q. And who paid you?

A. Mr. Nunn—L. L. Nunn. I also employed another hand in December, 1894, I think—December and January.

Q. You are familiar with the work that has been done there from the commencement, to some extent, are you not?

A. Yes, sir; been up there very frequently.

Q. Will you state to the court, please, what your observa-
353 tion has been there of the progress of this work?

A. As I stated, I have been up over the work very frequently—I suppose as often as twice a week, and sometimes, maybe, twice a month. When I would go up I would walk over a great deal of the construction work.

Q. Just state in brief what your observation has been of the general progress of the work.

A. Well, the work has been progressing since, and I think some time in April, as has been stated here, Mr. Madden came in and went up and commenced putting on a heavier force. The engineer force had been started the fall before Mr. Suhr came up. Mr. Cramer, either in September or October, if my memory serves me correctly, of 1895 commenced the engineering work, running lines for the purpose of ascertaining the most feasible point to establish their works, and the active work of construction upon the—what has been known here, as stated, as the temporary flume line, I think was started in April, 1896.

Q. To your knowledge, then, work has been done continuously at or near this point where you posted this notice since the time the notice was posted?

A. Since the day it was posted, or within a day or two afterwards, work has never ceased from that time until the present.

Q. Except when it was interrupted by the weather or——

A. (Interrupting.) Yes; well they have been right there on the ground under pay-roll and the work has been prosecuted as good as it could until this time.

Q. Do you know anything about a line that has been called the Suhr line?

A. Yes, sir.

Q. 60 feet above the river?

A. Yes, sir; I am familiar with it.

Q. You may state what you know about that.

A. Well, I have been over the line some two or three differ-
354 ent times for, I should judge, two or three miles of the line, commencing down the river below Thayer's and running up to the Hanging rock.

Q. When did you first go over that line?

A. My recollection is that it was either the latter part of October or early in November, 1895. I remember that it was not a great while after Mr. Suhr came.

Q. How was that line marked on the ground so that you could identify it?

A. It was marked with distinct stakes and occasional flags; where the stakes would be placed occasionally in brush there would be a little white flag attached to an oak limb that would be above it to designate the line. I know places along just below Thayer's house in a place—a barren, level country—not barren, but was a level

country—there was stakes stuck. My recollection is that there were two that could be seen for quite a distance.

Q. Have you ever seen the place near the Hanging rock?

A. Yes, sir.

Q. Do you know anything about any stakes on that rock?

A. Yes, sir.

Q. Have you seen them?

A. Yes, sir.

Q. At what time?

A. Well, from the time I mentioned right along at different times when I have been over it. I think that was the first time that I went over the line right up to that point, and then I was up there early in the spring of 1896; very early; I disremember just the date.

Cross-examination.

By Mr. THURMAN:

Q. When were you made trustee, Mr. Holbrook?

A. At the time I got instructions from Mr. Nunn.

Q. Did you give that date?

A. Sir?

355 Q. Did you give that date? If you did, I don't remember.

A. Well, I think it was a day or two after I met him, if I am not mistaken; I met him on the 24th of September, and he came down a few days afterwards and authorized me to establish that notice.

Q. Was that put in writing, that trusteeship?

A. No, sir.

Q. Just verbal?

A. Yes, sir.

Q. What were your duties as trustee?

A. To employ men, reserve the right to prepare for the work that was talked of, as I have stated.

Q. Do any and all things that might be necessary?

A. Yes, sir.

Q. To carry out the purposes, so far as you understood it?

A. Yes; so far as we had talked that over.

Q. You say you paid men?

A. Yes, sir.

Q. In what way did you have control of the funds, Mr. Nolgrook; was money placed to your credit or did you draw in Mr. Nunn's name, or how was it?

A. Both ways; I sometimes drew on Mr. Nunn; it was sometimes placed here to my credit for me to check on.

Q. Did you have anything to do with the Telluride Power Company?

A. No; not directly; I think it generally came in Mr. Nunn's name.

Q. Was there such a company?

A. Oh, yes; the company was talked of. I am not positive, Mr.

Thurman, that I did not draw one draft on the Telluride Company; I am not positive as to that, but I think they were generally in Mr. Nunn's name.

Q. Know what position Mr. Nunn held with the company?

A. Yes, sir; not to my personal knowledge.

Q. Informed you that he was manager of the company?

A. Yes, sir.

Q. You understood that when you was dealing with him
356 you was dealing with the company?

A. I do not know that, I am sure.

Q. Wasn't work generally done in the name of the Telluride Power Company?

A. I think not.

Q. Have they got an office here—that company?

A. I think so, now.

Q. Know what the name of the office is?

A. Sir?

Q. Has it a name?

A. I say they have a name here; yes, sir.

Q. How long have they had an office here?

A. I think it was established some time during the month of March of this year.

Q. Do you know whether they have transacted any business at all—the company?

A. Not of my own knowledge; no, sir.

Q. And do you know who has paid the men in the last year or two?

A. Different ones.

Q. Who, if anybody, is paymaster of the company?

A. Quite a number have been paying.

Q. Quite a number of paymasters?

A. Quite a number; yes, I think so.

Q. How many?

A. Well, I think that Mr.—the last—during the month of March, I think Mr. Bailey.

Mr. BROWN: Mr. who?

A. Bailey—J. E. Bailey—had drawn some checks, I believe, or signed some; L. L. Nunn, principally; him and Mr. Hoyt most of the time.

Mr. THURMAN:

Q. Who is Mr. Hoyt? Does he represent Nunn or the company?

A. I do not know anything about it; I presume Mr. Nunn.

Mr. BROWN: If he don't know, of course he better leave his presumptions out.

A. The checks have been signed L. L. Nunn, per Hoyt.

357 Q. L. L. Nunn?

A. Yes, sir; I have seen quite a number of them signed that way.

Q. You are trustee for Nunn. Have you any individual interest in the——

A. (Interrupting.) Yes, sir; I think so.

Q. (Continuing)—company?

A. Yes.

Q. Is your interest with Nunn or with the company?

A. Mr. Nunn.

Q. Your interest is not in the shape of being a stockholder, then, of the company?

A. Not at present.

Q. Not at present. Is it understood that it will ripen into that form?

A. I presume so; yes, sir. There has been formal talk of that kind.

Q. And Mr. Nunn's is the same way?

A. The same way—how is that?

Q. Mr. Nunn's will, you understand—his will result in the same way?

A. Don't know anything about that at all. I have no such an understanding.

Q. Don't know whether you and Nunn are working on the same lines as to your interest or not?

A. No, sir.

Q. Well, you have a sort of understanding that you are going to become a stockholder of the company?

A. I presume that I will be a stockholder; yes, sir. That was the understanding.

Q. I don't want to inquire further into your private affairs than may be necessary, but just so far as it connected with the case; but is your interest in this matter such that your compensation for your services would be paid by stock in the company ultimately?

A. No; there has never been any talk of that kind at all.

Q. Well, have you any understanding how much interest you are to get?

A. I could possibly explain that, if you desire, and further than I could answer the question.

358 Q. Well, I don't think it is material to go into any lengthy explanation, nor do I want—I say I do not want to know how much interest you have; but all I want to know is if you have any definite interest that you are looking for.

A. No, sir; I have not.

Q. Have you any interest, as you understand it, in this controversy or suit?

A. No, sir; no further than, of course, I am made a defendant. I have that way performed a good deal of labor and expect to have an interest in that way.

Q. If the suit should go one way that interest might be worth more than it would if it should go another?

A. I presume so.

Q. Individually and financially. Now, in this notice that you

posted as trustee, that was posted at about the Bridle falls—Bridle Veil falls?

A. Yes, sir.

Q. How far, how high above the river perpendicularly was it placed?

A. Was the notice posted?

Q. Yes.

A. Oh, a very short distance. I put it in a box and nailed the box to a tree that stood right close to the river; I think not to exceed probably six feet above the river at that time; that would be rather low-water mark—six or eight feet—I should judge, above the level of the river.

Q. How much of an investigation did you make, Mr. Holbrook, before you put up this notice?

A. Well, not very great. We rode up and down the river and set the instrument at a few points, and concluded that the greatest fall for the shortest distance was obtainable at that point; that was according to the instructions I had received from Mr. Nunn.

Q. You concluded from your judgment, based upon observation merely, that that was about the most available point for a dam?

A. No; I never thought about that.

359 Q. How?

A. That there was the greatest fall for the shortest distance was the instruction which I work*ing* upon entirely.

Q. Well, according to your instructions, you considered it the most available point?

A. No; didn't have any instructions at all in that line; simply to place it at the point where, in our judgment——

Q. (Interrupting.) Why did you place it at that point; what governed you?

A. To follow out my superior—his instructions.

Q. Did he name that point?

A. He named the point, as I have stated, where there would be the greatest fall in the shortest distance, and, in my judgment, I thought that was the point.

Q. And in your conclusions you thought that was the most available point?

A. No; I think, so far as that matter was concerned——

Q. (Interrupting.) Well, I say——

A. (Continuing)—I think that the greatest fall in the river for the shortest distance was at that point or about that point.

Q. Under those instructions, Mr. Holbrook, you put that notice at the best place?

A. Under those instructions, yes; where there was the greatest fall.

Q. I say, as you were instructed?

A. That was the only object I had in view.

Q. You say he spoke of irrigation purposes?

A. Say who?

Q. Mr. Nunn.

A. Yes; I mentioned irrigation when I first talked with him.
Q. Yes?
A. That has always been one consideration that I have had.
Q. How is it you didn't put that term in the notice?
A. Oh, I don't know. I didn't think of it, I presume.
360 Q. It was so far incidental to the main purpose that you didn't think of naming the word at all; isn't that true?
A. Well, that probably is the case. I think it would be incidental.
Q. Now, as a fact, the main idea at that time was generating electric power, as you understood it, was it not?
A. Yes; and making any other use of water that we had for irrigation and other purposes.
Q. I say that was the main point?
A. Well, it was the point we talked of.
Q. Generating electric power?
A. Yes; that was probably the new point, because using that for irrigation was somewhat old.
Q. But in your notice somehow you overlooked the purpose for irrigation?
A. Yes; I probably didn't think it was necessary, because the surplus water is generally supposed could be used for that purpose.
Q. I suppose in what you have done since you have acted under this notice?
A. No; I do not know that we have particularly; it has been in pursuance of that in following up our right in regard to the water.
Q. You disregarded this notice, then, after it was put up; paid no further attention to what was said?
A. Well, I don't think we disregarded that. I think I have said very plainly that we have commenced work and been spending money there ever since.
Q. How far is this point from the place where the proposed dam now is?
A. Which proposed dam, the upper or the lower?
Q. Well, there is a lower dam, ain't there, now?
A. No, sir; no.
Q. Well, I thought there was.
A. No, sir.
Q. Well, I mean the—what you call here your permanent dam.
361 A. The permanent dam at the Hanging rock.
Q. How far was it?
A. It is my impression that that is close to two miles; I wouldn't be positive about that. I have rode over it a great many times, but I don't know just exactly; I should say in the neighborhood of two miles.
Q. Now, you may state how far it is from the temporary dam proposed.
A. Well, I should say it was about midway between the two points.

Q. The temporary dam?
A. Yes, sir.
Q. The temporary dam would be nearer the proposed permanent dam than at the place where you put your notice?
A. My impression is, Mr. Thurman, that it is a little nearer the first notice, but that would be simply an opinion.
Q. When did you see stakes at the Hanging rock?
A. I think that was staked clear up to the Hanging rock in October or November of 1895. Then I was also up there very early in the spring.
Q. Was there anything on the stake?
A. There was not; no; not in the fall; just simply the line that Mr. Suhr run.
Q. Was that line measured?
A. I do not know.
Q. At that time?
A. Well, as to its length?
Q. Yes.
A. I do not know as to that.
Q. I think you say also that in 1895 you saw what is called the Suhr line. Was it marked along at intervals with flags?
A. Yes; there were flags on it and stakes marked all the way along distinctly.
Q. What time in 1895 did you see that?
A. I think it was in the latter part of October or fore part of November.

The COURT:

Q. 1895?
A. 1895.

Mr. THURMAN:

Q. How high was that above the Hanging rock?
362 A. I understand that the Hanging rock——
Q. (Interrupting.) Above the river at that point?
A. I do not know; it was known as the 60-foot line; then there was another; both lines were run.
Q. How?
A. Both lines were run, I think; the line that the canal is now on, that the flume is now on, also were both run that fall, if I am not mistaken.
Q. I am speaking of the line you say was flagged there in 1895, was twenty feet higher than the line that is now run.
A. No; my understanding was that it was the same place that it is now.
Q. The same place?
A. Yes, sir.
Q. You heard the testimony of Mr. Cramer on that this morning, did you not?
A. Yes.
Q. Well, did that tend to modify your testimony?

A. In what way? I do not know what part you refer to now. I don't remember just——

Q. (Interrupting.) As to whether the 60-foot line as it now stands was flagged in the fall?

A. I don't remember what his statement was on that.

Q. And he said it was a line some twenty feet below that?

Mr. BROWN: He didn't say it wasn't flagged; he said the line that was pointed out.

Mr. THURMAN: He said it wasn't flagged.

Q. Is your recollection quite clear, Mr. Holbrook, that that 60-foot line as it now stands was flagged in 1895?

A. Yes; I think, Mr. Thurman, that at some points the stakes would be hid through the brush; my recollection is that there was a few flags; it wasn't so generally flagged as the lower line; the lower line was run through brush all the way; the upper line, the 60-foot line, was for quite a distance, was bare ground, the
363 stakes showed very plainly; that is my best recollection.

Q. There were three lines?

A. I think there was three lines, to the best of my recollection.

Q. That third line would be below these two that you are speaking of?

A. The 60-foot line is the upper line, and my recollection is—yes, the other two—I could not state.

Q. They were all marked?

A. Yes, sir; with flags and stakes.

Q. Where did you see those flags—at what point along the river?

A. Well, I think below Thayer's there was some; probably some three or 400 yards below there was a little ravine runs up that is quite brushy.

Q. Were there any above the Hanging rock?

A. No; not above the Hanging rock. I did not go above the Hanging rock at that time.

Q. Do you know whether these flags ran up as high as the Hanging rock or not?

A. My recollection is that there was one or two a short distance below the Hanging rock. I think there was also brush there. We followed the road along on the line across

Redirect examination.

By Mr. BAILEY:

Q. Just a question I wanted to ask, Mr. Holbrook—the distance from the bridge—the county bridge—to the Hanging rock. You said that you thought that it was about two miles?

A. Yes, sir.

Q. I will ask you to take this map——

Mr. BROWN: Put in the question what map it is.

Mr. BAILEY:

Q. Yes; this is a copy of the map attached to the complaint in

this case. I will ask you to take this rule and measure from the bridge to the Hanging rock—from the bridge to the point which has been marked Hanging rock.

A. According to this, on a straight line it would make it only about——

364 Mr. BROWN: 1,600—5,600?

A. 5,600; that is right.

Mr. BAILEY:

Q. 5,600?

A. A little over—not quite—a little over a mile and a quarter; a mile and a third, probably.

Mr. BAILEY: I call your honor's attention to the fact that this map has been marked "Pl'ff's Ex. H."

—. ——.

Mr. BAILEY: Yes; it is a blue print of the same map.

Mr. HARKNESS: It is all right; no question about the map.

Mr. BAILEY: And it shows that the distance between the bridge and the Hanging rock is 5,600 feet.

Q. Was anything ever said about reservoirs?

A. Yes, sir.

Q. For the purpose of controlling the flow of the river?

A. Yes, sir.

Q. By Mr. Nunn?

A. Yes, sir.

Q. You may state when and what was said.

A. At different times he had said to me that in order to make the plant practicable at all they would have to have a storage basin.

Q. Do you know anything about the survey made by Mr. Mathis for the purpose of finding a reservoir or searching for a reservoir?

A. No; not by Mr. Mathis.

Q. Do you know that he ever located for a reservoir?

A. No, sir.

Recross-examination.

By Mr. THURMAN:

Q. One question further, Mr. Holbrook. Mr. Holbrook, didn't Mr. Nunn tell you early in your acquaintance with him in this matter that he didn't want—didn't know anything about irrigation and didn't care about having anything to do with it, or words to that effect?

A. He had stated to me that his experience was more in power than in irrigation.

Mr. THURMAN: I ask that that be struck out as not re-

365 sponsive to my question.

Mr. BROWN: We do not care whether it is stricken out or not.

Question and answer read.

The COURT: You may answer the question, Mr. Holbrook.

Mr. THURMAN: I didn't ask him what Mr. Nunn said; I asked him if Mr. Nunn did not say a certain thing. I think you can answer it yes or no.

A. No; I do not think that he said that he didn't know anything about irrigation or anything in that line.

Q. Didn't he state in substance that he didn't care about having anything to do with that; his object was generating electric power?

A. No; I think not.

Q. I will ask you to state if some time about early in 1895 or late in 1894, in conversation with Mr. Coray, in which he was trying to negotiate a sale of some claims that he had or right to something, if you didn't tell him that Mr. Nunn did not care anything about having anything to do with irrigation.

A. Mr. Coray——

Mr. BROWN: Just answer whether he said that or not. I object to all the talk with Coray you have had.

The COURT: You can answer that, Mr. Holbrook, and then if there is any explanation you can make it.

Mr. THURMAN:

Q. Did you say anything like that to Mr. Coray?

Previous question read by reporter.

A. I did. I could explain that fully, why I made that statement.

Q. Well, now, then, Mr. Nunn had told you before that, then, that he did not care anything about having anything to do with irrigation?

A. No; not that way.

Q. Well, you told Mr. Coray that he said so?

A. I told it partially that way. I could explain that if I had an opportunity.

366 Q. Well, you can answer, Mr. Holbrook, whether you ever told Mr. Coray that?

A. I have said that I told Mr. Coray substantially that.

Q. Well, if you told Mr. Coray substantially that, then Mr. Nunn said substantially that to you, didn't he?

A. Not necessarily so.

Q. You did not tell Mr. Coray what Mr. Nunn said?

A. No; I did not fully.

Q. I suppose you was trying to get rid of Mr. Coray in the deal that he had proposed?

A. I do not know why, I am sure. I employed Mr. Coray, and I do not think Mr. Coray will say that I tried to get rid of him in any way, shape, or form.

Q. How is that?

A. I say I do not think Mr. Coray would say that I ever tried to get rid of him in any way, shape, or form.

Q. I do not mean in the sense of driving him or of wronging him in any way, but in the sense of a deal.

A. Well, if he had any right there, and I was trying to get rid of him without paying him, it would be a wrong, wouldn't it?

Q. Well, I don't know whether you was trying to get any rights that he had, if it was wrong or not, but the question was simply this, Mr. Holbrook. We can get at that without any explanation: Did you say to Mr. Coray substantially that Mr. Nunn had told you that he did not know anything about irrigation and did not care about having much to do with it?

A. I told you, I think I said, he did not care about having much to do with that part of it, as Mr. Coray was dealing principally in irrigation—in fact, all of it. That is to the best of my recollection, but there was a talk of that kind.

367 Redirect examination.

By Mr. BAILEY:

Q. Now, Mr. Holbrook, will you please tell what conversation you had with Mr. Coray at the time indicated?

A. Mr. Coray claimed to be connected with Mr. Searle in a survey that had been run some time previous to my acquaintance with Mr. Nunn; I am not positive as to whether that survey was run in 1892 or 1893, but it was previous to my meeting Mr. Nunn, and I had had a talk with Mr. Coray in the matter. It seems that they had been endeavoring to negotiate their interests.

The COURT: Just suspend a moment.

A. They had made a survey——

The COURT: Just wait a moment, please. Now go on, Mr. Holbrook.

A. They had made a survey through the canyon, in fact showed me a map, and, if my memory serves me correctly, a canal skirting the base of the mountain nearly around or near to what is known as the point of the mountain between here and Salt Lake City; believed there was a great opportunity for storing water and establishing a reservoir for the purpose of irrigation, and the matter of electric power was also mentioned. I told him that I would see what I could —, if it come in my line; that I thought of it a great deal and believed there was one of the best opportunities, in fact the best opportunity, in the State for the establishment of a power, and that there could be a great deal of surplus water that is not now appropriated that could be used also for irrigation purposes. I think this talk was some time during 1894. After I had met Mr. Nunn, become interested with him in this matter, I conversed quite frequently with Mr. Coray, and, I think, upon a few occasions with Searle, but more frequently with Coray, and he seemed to insist constantly and continuously upon the great advantages that
368 could be derived from irrigation, losing sight largely of the other, and spoke of the reservoir. I don't remember just now where that was to be established—somewhere in the canyon—and he made various offers for his interest.

Mr. HARKNESS: Well, if the court please, can't we call this down, all that he said to Coray?

The COURT: I was wondering where we were going to land. A civil suit—you don't want to extend that too far. What was it you wanted to know?

Mr. BAILEY: The question was to state the conversation that took place between you and Mr. Coray at the time indicated.

The COURT: Haven't you stated the substance, Mr. Holbrook? It was on that irrigation question, wasn't it, between irrigation and electric power?

Mr. THURMAN: As to what Mr. Nunn said he wanted or didn't want.

A. My statements, I think, on that point was that the power was the first consideration, and then irrigation would naturally follow and be taken up afterwards, while Mr. Coray's idea was irrigation first and power afterwards, as I understood.

Mr. BAILEY:

Q. That is the substance of the conversation?

A. Yes, sir.

Q. Did you state to him anything that Mr. Nunn had said about it?

A. Sir?

Q. Did you state to him anything that Mr. Nunn had said about it?

A. I think so. I think I stated that at that time substantially.

Q. State in substance what you told him.

A. I don't remember the words, probably—the substance. I wouldn't say that it was the words at all——

Q. State in substance, please, what you told Mr. Coray that Mr. Nunn had said.

369 A. That the power was the first thing for him to consider, and that the irrigation would be taken up after.

Q. The notice that you posted recited that you intended to appropriate the water of Provo river for the purpose of generating electric current and for other beneficial uses?

A. Yes, sir.

Q. And what other beneficial uses did you contemplate at that time?

A. Well, I don't know of any other unless it would be irrigation. I do not know of any other that we talked of.

Mr. WEDGWOOD: Oh, I think we will object to it.

The COURT: It is hardly proper; it is a written document, and if there is any explanations to make upon it—what do you wish to say, Mr. Bailey, anything?

Mr. BAILEY: Stress was laid upon the point by counsel on the other side that irrigation was not mentioned in this notice. I do not know for what purpose it was done, but I simply wanted to call attention to the fact that irrigation was intended among the beneficial uses as contemplated by the notice. It is true the notice speaks here for itself, and if it is objected to we will withdraw it.

L. L. NUNN sworn for the defense.

Examined by Mr. BAILEY:

Q. State your name and age to the stenographer.
A. L. L. Nunn. I don't remember just what age I am.
Q. Over twenty-one years?
A. Over 21 years; yes.
Q. State where you were born, Mr. Nunn.
A. In Ohio.
Q. Of what State are you now a resident and citizen?
A. Colorado.
Q. How long have you been a resident and citizen of Colorado?
A. For 17 years; a little over 17 years.
370 Q. For the past 17 years?
A. For the past 17 years; yes, sir.
Q. I will ask you to state when your attention was first called to the Provo river as a river which could be utilized for the generation of electric power.
A. It was first reported to me by letter in 1893.
Q. By whom was this report made?
A. By Mr. T. A. Davis.
Q. Was Mr. T. A. Davis employed by you at the time?
A. He was under a partial employment.
Q. For what purpose?
A. Looking after part of my interesrs in Utah.
Q. Did he make any other reports to you about electric—about water powers in Utah?
A. He sent me reports of nearly all streams of importance of Utah—preliminary reports made from engineers, the Cotton Woods, Mill creek, City creek, giving the capacity and the volume.
Q. What is your connection with the Telluride Power Transmission Company?
A. Stockholder and general manager.
Q. Will you state briefly what business the Telluride Power Transmission Company is engaged in?
A. The Telluride Power Transmission Company is engaged in mining, milling, and the development, distribution, and sale of power.
Q. Has it any electric power plant in operation, and where?
A. It has a generating plant, situated at the forks of the San Miguel river, known as Howards and Lake forks.
Q. Describe that plant briefly.

Mr. HARKNESS: How is that material?
Mr. BAILEY: I think it is material.
The COURT: I fail to see the materiality, Mr. Bailey.
Mr. HARKNESS: Simply a question of time is all I object for.

371 Mr. BAILEY:

Q. Will you state to the court how the Telluride Power Transmission Company has caused you to become interested in the trans-

mission of electric power, and what you have done toward acquiring water powers elsewhere?

Mr. THURMAN: We object to it once for all as immaterial and irrelevant. I suppose he can testify as an expert. If he wants it for that he can say so.

The COURT: I am unable to see the materiality of it, Mr. Bailey. connecting right direct with this company.

Mr. BAILEY: If your honor please, I desire to have Mr. Nunn answer the question for the purpose of showing that he has been interested in the matter of electric power plants for considerable time, and that his interest in the defendant company has caused him to become interested in this plant.

The COURT: If you desire, Mr. Bailey, to show that he was an expert, offer it in that light—why there would be no reason to object to it, but simply to show that he was engaged in that particular business.

Mr. BAILEY:

Q. Answer the question, then, please, Mr. Nunn.

Mr. THURMAN: We object to it as irrelevant and immaterial.

Mr. BAILEY: I understand the judge to rule he could answer.

The COURT: I say if you desire to ask the question as an expert witness, he can answer it if he designs making him an expert witness.

Mr. BAILEY:

Q. I will put the question in another form. Will you state when you first became interested in the Provo river as a water-power enterprise and how?

A. As I stated, I employed Mr. Davis to look up and furnish me with preliminary information respecting the desirable water powers in this Territory, and he wrote me in the summer of 1893 respecting many of them, and Provo among others. They were all
372 too small apparently except Provo, and I instructed him to take a surveyor and to get some idea as to the flow of the Provo river, and for the purposes of power especially. He did that in November, and wrote me a short report dated, I believe, on the 1st day of December, 1893. I did nothing more in reference to the proposition that year. It did not seem from his report to be specially desirable, and I paid no further attention to the matter until—I think it was August or September of the following year, 1894, when I returned from an examination of the Snake river, and had an interview with Mr. Holbrook in Salt Lake City. Owing to his description of the matter, I decided to come down and look over the river. That must have been in September, 1894.

Q. State when you first went up the river and what you did at that time.

A. I drove up the river in company with Mr. Holbrook, August or September, 1894, looked it over as carefully as I could in one day; was rather disappointed with the size; stated to Mr. Holbrook

that I was disappointed with the size, and the proposition would have to be figured carefully in order to determine whether it could be developed into an enterprise of sufficient size for us to undertake. I instructed Mr. Holbrook to begin preliminary work, and promised to send him engineers for the engineering work. A few days later I sent Mr. Mathis, who ran the lines that have been referred to in the evidence, and a short time later furnished me a map and a brief report, the report of which, I believe, was not put in evidence, but was read by the different attorneys yesterday.

Mr. BROWN: Well, as long as that report has been shown to all parties, I offer it in evidence now. Have you got the copy here?

A. I think I have the copy in my pocket; I will see.

Mr. HARKNESS: I think we will object to it as wholly immaterial.

373 The COURT: What is the materiality of it, Mr. Brown?

Mr. BROWN: Simply to show the fall of the river—the report of it. It is as material as the map.

The COURT: I hardly remember what he said on that. Does he claim that that plat or map that he introduced was in keeping with a report that he made?

Mr. BROWN: Yes, sir; made a report by written statement and by map.

(WITNESS:) This is the report.

The COURT: The map was introduced?

Mr. BROWN: The map was verified and introduced.

The COURT: Well, let the report be put in, then.

Marked by reporter "Def 'ts' Ex. 5, D. H. R."

Mr. BAILEY:

Q. Did you visit the Provo canyon after you received this report or at any time before or after?

A. I visited the canyon before I gave Mr. Mathis his instructions.

Q. Did you visit it again after?

A. I visited it 20 or 30 times since.

Q. Well, will you state what was done by you after this report was made up the canyon?

A. Do you mean under my instructions?

Q. What was done by you in Provo canyon or under your direction?

A. The first work done under my direction was the placing of the notice by Mr. Holbrook and Mr. Mathis at what was considered practically the top of the rapids, and the next was the setting to work of Mr. Thayer and several men in the preparation for surveys. A few days later Mr. Mathis came down, and, in obedience to my instructions, made an examination of the country fed by South fork and by Cascade creek and by the country up in that direction, as will appear by his report. It had been reported that there were several lakes up there that could be used as reservoirs,

and he was instructed to do that first. As soon as he made
374 that examination he ran the level which is shown by the map which has been introduced. A few days or perhaps a week or two after I was able to spare Mr. Cramer and instructed him to come and make an examination of the canyon, more particularly with the idea of running a canal to conduct the water. His work was particularly limited to the designating of the best course to be used in the operating of a canal and to ascertain whether the ground would stand for such purposes. A short time after I sent the chief engineer of the Telluride Power Transmission Company to look the situation over, with particular instructions that he must either find a proposition of ten-thousand-horse power or abandon it, and that I wished that done that fall. I came again in the fall and looked over the line. Both Mr. Cramer and the chief engineer, Mr. P. M. Nunn, had agreed that nature had particularly fitted a certain line of benches running on the north side of the canyon—the side we have called the north side—for ditch-work. The difficulty seemed to be, though, that it was a great distance above the river. I went over that line carefully and agreed with them fully that there were many advantages, and that that might be almost the only place where a ditch of the size necessary to take the river could be run. It was agreed upon then, from the measurement of the river, that the river furnished water at low periods, water for less than 5,000-horse power instead of 10,000-horse power, and that if we—that is, on the level given by Mr. Mathis, which ran practically up to the present abutments or Hanging rocks, as we call them—to take the water out of the river at that point—we then had a mark to start from—that we must double the capacity for power from that point by increased head or increased volume or both. We set the engineers then to work on that proposition.

Q. At what time was that?

A. That was in the fall of 1894; it wasn't far from Christ-
375 mas. I think it must have been in December, because we stopped the work soon after that.

Q. What did the engineers do, and what reports did they make to you in pursuance of your instructions?

A. They leveled down from that point and reported that it was 60 feet, 60 feet above the river at a point below the Hanging rock, which has been called Middle rock in this testimony. That was practically all that was done that fall.

Q. That was the fall of 1894?

A. That was the fall of 1894.

Q. What was done next toward fixing the location of your flume or dam?

A. In the recommendation that they had given, that from all appearances the waters of North fork and South fork amounted to a very large proportion of the volume of the river during the irrigation season, to such an extent that the main river seemed to be almost dry during the heavy irrigation season—this is as I am informed—and that most of the water flowing down the river comes from North and South fork, not out of the Charleston flat; that this

gave us another point to start from; that it would be impossible to make use of the water on a high level by means of a ditch, where we would have to take the water below the North and South fork, so as to save those. It then became a question of the erection of a dam, and a dam was determined upon as absolutely necessary for the enterprise, and that the enterprise would be absolutely worthless to us, would fall below the size that we intended to make use of here, unless we could find some way of increasing the volume at the head. That dam having been agreed upon, the recommendation came to agree as to the method of constructing the main dam, which would take some time and some power, and the necessity of some power, either steam or water. That winter I determined to put up a temporary plant, and ordered a motor especially designed
376 for it at the Fort Wayne Electric Company in January, 1895. In the following spring, in May, I instructed Mr. Cramer to come and lay out that temporary work. He came and, as he has testified, laid that out in May, and left Mr. Thayer to cut out the brush for that work. I then called him to Colorado on an important mining survey. That took a great deal longer than was expected, so that he did not return until October, 1895. In October, 1895, I sent him, and a few days later sent an assistant, Mr. Suhr. As soon—I think within two or three weeks after I came from the East, I believe, and the engineers had made some changes in the line that had been laid out very hastily by Mr. Cramer in May. Then Mr. Suhr laid out the line which is mapped there. I can point it out, if you wish.

Q. All right; take the map.

The COURT: Gentlemen, a matter was set for hearing this afternoon; the parties are here from Spanish Fork. It was then the rumor that this case would go to the other court. There *is* some 7 witnesses here from 12 miles away, and if it would not inconvenience you, gentlemen, I would like to adjourn so far as this is concerned. We are at a good stopping place, now, I presume.

Mr. BAILEY: Any place, your honor.

Hearing adjourned until Friday, April 2nd, 1897, at 10 o'clock a. m.

Resumed session.

L. L. NUNN recalled.

Examined by Mr. BAILEY:

Q. When the examination closed yesterday, Mr. Nunn, I believe you were testifying as to the work which had been done up Provo canyon in 1894, or about that time. Will you please continue, and testify as to what was done and what the purpose of the work was?

A. I believe I gave a short description of the work done during the fall of 1894 yesterday.

377 Mr. HARKNESS: He had reached 1895. He had got so far as to say that in 1895 he determined to put in a dam.

The COURT: And the examination of the plat—of those maps—was given.

Mr. THURMAN: That he put in a temporary plant and ordered a motor.

A. The fore part of May, 1895, Mr. Cramer was ordered here to lay out a temporary line, and I believe arrived on May 5th and spent a few days; laid out the line and left Mr. Thayer instructions——

Mr. HARKNESS: Well, now, do you know that, Mr. Nunn, or are you telling what you have heard?

A. I only know that——

The COURT (interrupting): Mr. Cramer testified to that. If you do not know it, only proceed with what you know.

A. I only know it by the report that was sent to me as manager. I know Mr. Cramer was here during May, 1895, from the fact that I received telegrams from him, and letters. About the middle of July I came here myself in company with Mr. H. R. Newrand, the treasurer of the Telluride Power Transmission Company, and inspected the work that Mr. Thayer was doing, which was on the lower temporary line. He was cutting the brush and grubbing up the roots and preparing for the grade to be made for the temporary line. I spent only one day here at that time. The following week, in returning from Butte City, I spent two days—two or three days here, I think—spent some time, anyway—and I went over the ground again. That time I went over the upper line, which was not run at that time, but I went over practically the course which was designated as the one preferred by the engineers. Early in October—I think either the third or fourth—I sent Mr. Cramer here with instructions to thoroughly look over the ground, run lines on
378 both sides of the river, and to run several lines from the temporary up to the 60-foot level, including these two, to have them in proper shape, so that I could consider them when I returned. A few days later I sent Mr. Suhr to assist Mr. Cramer; also instructed the chief engineer of the company to come and consult with Mr. Cramer in reference to the general design, and to go over carefully the plan which had been reported to me as essential in order to obtain the considerable amount of power which we required, being 10,000-horse power, the amount that we were trying to obtain.

Mr. BAILEY:

Q. When did you visit the canyon again?

A. I came back in about the middle of November. It may have been the 12th; it may have been as late as the 16th, but it was the fore part of November. I came then in company with the chief engineer and one of the Westinghouse engineers, Mr. Conners. We spent several days and then looked over the ground which had been levelled and the different lines run very thoroughly—no; befor that; it was a few days before that instead of after. I must correc that statement. I am getting my dates a little confused. It wa

about that date that I came in company with Mr. Campbell, James Campbell, of St. Louis, the president of our company, the chief engineer, and yourself, Mr. S. A. Bailey. We went to Butte, to Park City, and then came down the canyon from there looking over the flat at Charleston, and following down the river, looking at the different features as we came down.

Q. Do you remember when that was?

A. That must have been about this same date, I think. I got these two trips mixed. I think this must have been somewhere from the 12th to the 16th of November; it was along in November anyway, the same time. We didn't examine the lines very fully there. We went up, however, to what has been called the

379 Hanging rocks—stopped there. We stopped a short time at Ferguson's and we stopped at the Hanging rocks. Mr. Campbell, having been an old engineer, was considering the question with me of the best appropriate place to put the dam. We had some discussion there, and he regarded the Hanging rocks as the best place and I regarded the point which has been called Middle rock; always did regard Middle rock as the most convenient place. We then went up onto the 60-foot line—the Suhr line—and walked, not the full distance to the end of the canyon, but some distance below Thayer's line. We returned down onto the lower or temporary line that was being laid out; probably spent about three hours, because we reached Provo at dark and took the night train for Salt Lake City. Then I returned, about the middle of December—oh, I came back here and spent three days after Mr. Campbell left Salt Lake for the East; that was about the 23rd or 24th.

Q. Did you look over the lines personally at that time?

A. Yes; we looked over the lines quite fully at that time, and there had been several of them run, not all of them, however, at that time. I spent two or three days. I was gone then, I think, four days; went to Butte City and returned here and stopped again as I went back. That must have been about the first of November—about the first of December. I then returned from Telluride on—about the middle of December. That was the trip when Mr. Converse, our chief engineer, was with me; remained here then until the 23rd of December. The storms had set in; the work was substantially closed—actual work on the ground—and I gave instructions for the power lines to be gone over from the mouth of the canyon to Tintic, Mercur, and Park City.

Q. Did you go over the lines in the canyon at that time?

A. I did.

380 Q. It appears that a number of lines had been run in the canyon under your direction prior to the first of January, 1896. Will you state how many lines were run, and what was accomplished by them, and for what purpose they were run, and, in general, what you know about them?

A. Well, there were five lines—five distinct lines—stakes on the north side of the canyon and one on the south side of the canyon. The object of running numerous lines, of course, is clear to any engineer. The most wasteful of all work is that which economizes on

the preliminary engineering work, which is self-evident. It takes thousands of dollars to correct an error which ten dollars might have prevented, and for that reason I was anxious to have the ground thoroughly gone over, and I instructed that it should be thoroughly gone over, even if they had to spend a great deal of money and time in clearing off the ground so that it could be thoroughly seen. Most of it is extensively heavily ground with underbrush, and it took a good deal of time to clear this. You understand, of course, that the preliminary lines are never run with a transit. Preliminary lines are run merely with the level, so that the ground can be thoroughly inspected, and then the next step is to run that line with the grade that is figured out to be necessary; then comes the transit line, after which the maps and cross-sectioning can be done.

Q. You state there were five lines run?

A. There were five lines run in December, 1895.

Q. Can you give a general description of those lines?

A. Well, that is——

Q. (Interrupting.) By reference to any——

A. (Interrupting.) That is rather difficult to do. I could hardly do that. The important features of the line selected I may be able to recall.

381 Q. Which lines was selected or which lines?

A. The line here called the Suhr or 60-foot line was selected as the only line that would be feasible for ditch-work.

Q. When was that line located?

Mr. WEDGWOOD: I think, if the court please, we will object to that as calling for the opinion and conclusion of the witness. I think this has gone far enough.

Mr. BAILEY: I will withdraw that question.

Q. When did you go over that line, Mr. Nunn?

Mr. WEDGWOOD: I think that is immaterial and will object to it. I think it has gone far enough.

The COURT: He testified when he went over the line, in November and December. I understood the witness to answer in regard to all the lines. Now, is this another one?

Mr. BAILEY: He testified that this was the line selected, and I wanted to ask him about that.

Q. When did you know of anything being done on that line, Mr. Nunn, first?

A. The first was in 1894; then I say it was simply inspected and found that a line of a flat——

Mr. WEDGWOOD (interrupting): We move to strike it out; he has answered the question now.

Mr. BAILEY:

Q. When did you first see stakes on that line or any——

A. (Interrupting.) November, 1895.

Q. Describe its appearance at that time.

A. The appearance at that time was a line that had been sufficiently cut out for the ordinary surveying to be done.

Mr. WEDGWOOD: If the court please, sufficiently cut out is calling for his conclusion. Let him say what the condition was.

The COURT: Confine yourself, Mr. Nunn, to the answer of the question as they are propounded by the counsel, and if there is further explanations, why they can be called for.

382 Mr. BROWN: He don't object on the ground that he is not answering the question. We are asking what the appearance was on the ground, and he says it was sufficiently cut out.

Q. Just go on and describe what the appearance of that line was that you say was cut so and so, and if stakes was stuck; tell us that.

A. The brush was cut out and stakes, the ordinary surveyors' plugs, two inches square, were put in at each angle, as I remember it, and there were a number of white flags along the line to indicate from a distance where the general line ran. I think, however, the flags I saw in December, not in November.

Mr. WEDGWOOD:

Q. Excuse me; what line was this?

A. The Suhr line, or 60-foot level.

Mr. BAILEY.

Q. Did you give any instructions to have a stake put indicating that this line had been definitely selected at any time?

Mr. WEDGWOOD: We object to what the stake was to indicate.

The COURT: I suppose, Mr. Bailey, you have reference to that location stake up there on the tree there?

Mr. BROWN: This is an earlier one.

The COURT: Well, find out if there had been a stake put there.

Mr. BROWN: That is what he is trying to do, asking him if he made any instructions.

The COURT: Answer the question whether you gave any notice or gave any directions.

A. I gave instructions; yes, sir.

Mr. BAILEY:

Q. When?

A. I think it was in February, 1896.

Q. What were those instructions and to whom were they given?

A. Mr. Cramer.

Q. And what were the instructions?

A. It was to place the notice which was put in evidence
383 yesterday at the water level of the reservoir.

Q. Did you see that notice afterwards?

A. I did.

Q. Where was it placed at that time when you saw it?

A. It was placed at the ditch level instead of the water level of the reservoir.

Q. Did you give any instructions with reference to it afterwards?

A. I did.

Q. What were they?

A. I said, "Leave this right where it is," but it is an error; it leaves no water for reservoir purposes above; put another stake on the 85-foot level or 25 feet above, which is the amount we require for reservoir.

Q. You state that you require a reservoir of 25 feet; will you please state what the basis of that calculation is?

A. The basis of the calculation is the minimum flow of the river and the amount of extra water beyond the minimum flow of the river which is required to produce, according to calculations, the 10,000-horse power during the short season of water.

Q. Did the natural features of the canyon afford opportunities for the creation of such a reservoir as you desire?

A. Very good opportunities indeed.

Q. When did you first determine to build this plant, Mr. Nunn?

A. It was practically determined when Mr. Campbell was here in November, 1895; absolutely decided on between then and the first of February.

The COURT: 1896, you mean?

A. The first of February, 1896. Practically determined in November, 1895, and decided between—before January, 1896.

Mr. BAILEY:

Q. When was it determined that it would be necessary to construct a smaller plant than the one originally contemplated?

A. Why, that was determined by the natural require-
384 ments of the conditions; it would be absolute insanity——

The COURT (interrupting). That doesn't tell when that occurred.

A. It was determined at the time. May I ask a question, whether you mean by determination any agreed purpose or plan?

The COURT: Well, as to the date—the question goes to the date of that determination.

Mr. BAILEY:

Q. The date?

A. The determination to build the large one determined the election of the smaller one as a matter of necessity.

Q. When did you determine where the smaller plant would be built, the smaller dam?

A. Not until March, 1896.

Q. When was it determined approximately where the larger or permanent plant was to be built, permanent dam?

A. It was determined that it would be at the Middle rock or at the abutment, which is approximately, I suppose, the question—the Hanging rock, in November, 1895; practically had been determined before that, but then that was the final decision.

Q. Now, after you determined where the smaller dam or smaller flume should be constructed, what was done toward carrying out that instruction?

A. The temporary plant?

Q. The temporary plant.

A. Work was commenced and pushed as rapidly as practicable. I telegraphed to our superintendent immediately, our superintendent at Butte, to come and take——

Mr. WEDGWOOD: We object to this as wholly immaterial.

The COURT: Answer the question, Mr. Nunn.

A. Everything that could be done. Shall I enumerate it?

Mr. WEDGWOOD: Well, we move to strike that out as calling for a conclusion of the witness, what was done up there.

385 A. First, the superintendent was selected and put in charge of the work; then men were employed—in the neighborhood of forty men—on the grade. The grade was constructed and contract was made for a flume, the time specified in the contract as 60 days after the completion of the grade, and the grade was actually completed some time the last of May or June, and the flume placed upon the grade some time after that date.

Mr. BAILEY:

Q. With whom was the contract for the construction of the flume made?

A. Mr. Sterling.

Q. And when and where did you first see Mr. Sterling?

A. I saw Mr. Sterling in Salt Lake City, at the Cullen hotel, on the 27th day of February.

Q. Did you have any conversation with him about the construction of a flume in the canyon at that time?

A. Of course, I did, and talked with him very fully about it; discussed defects and merits of his plans.

Q. How long would it require to build the permanent plant as contemplated for 10,000-horse power?

A. If everything worked well as might be expected, it would take at least two years.

Q. Is it your intention to keep continuously at work until such a plant is completed?

A. It certainly is; it is.

Q. What will be the probable cost of such a plant?

A. I have figured it at thirteen hundred and eight thousand dollars.

Q. Will you explain how the cost of construction of the larger plant will be decreased by the construction of the smaller first?

A. In the construction of a reservoir of the best quality there should be no dead water left at the bottom below the drainage point. In this case there should be no dead water below the 60-foot

level, at least for a very long distance back. The handling
386 of the rock of the masonry itself will require a good deal of power, but nothing compared with the amount that will be required to move the amount of material that should go on the upper side of the dam. The foundation of the dam should be laid on bed rock in cement, and then the fill made above it, and keep a little above the masonry as it goes up. It should be dropped at considerable height*h* from the flume in which it is carried, and it should be tamped there by power tamps or else depend upon the packing of the rock falling from a distance, and the masonry, I say, should follow up the bed of the canyon, so that practically after reaching the 60-foot level you would have a natural, compact concrete following the valley up to that height*h*, so that a reservoir built will only require a dam of 25 feet instead of 85 feet, the other being as solid as it can be. In the moving of all that material, which amounts to several hundred thousand yards, hydraulics is the only thing within the reach of proper financial calculations. It could be moved by hydraulics probably at a cost of two cents a yard, and in any other way at a cost of 20 to 30 cents a yard.

Now, in the hydraulics, it is absolutely essential to have a large amount of power for the pumps to throw the water up on to the sides of the mountain and sluice it down, exactly the same as we do in placer mining, and we hope to take some of the value out possibly in the results of sluicing.

Q. How long will it take to complete the temporary plant?

A. Pardon me; may I finish the answer on that first question?

Q. I thought you had, you had come to such a long pause. Excuse me.

A. The waterway on the upper level, as we calculate that it will have to be, would be about 40 feet on the bottom and 30 feet on the top, and would carry about nine feet of water; that is where power
387 shovels would be almost essential, and on those benches power shovels could be used to a very great advantage, or at least one power shovel would do the work of a great many men on that soil. I prospected; I examined it personally as to the feasibility of that kind of work. The time to complete the temporary plant is comparatively very small. It can be pushed through in three or four months easily.

Q. I will ask you if by the construction of the temporary plant first, if by its use in the construction of the larger one, you will be able to complete the larger one sooner than you otherwise would.

A. Certainly; complete it in very much less time and at very much less expense.

Cross-examination.

By Mr. THURMAN:

Q. What relation, if any, do you bear to the Telluride Power Transmission Company?

A. Stockholder and general manager.

Q. Do you own the majority of the stock?
A. No, sir.
Q. Is that the company that is proposing to build this plant?
A. That is not determined.
Q. How?
A. That is not determined.
Q. Not determined?
A. No, sir.
Q. Well, isn't it determined who is going to build it?
A. Not absolutely; no, sir.
Q. Then, do you have any idea who is going to build it?
A. Certainly.
Q. Who?
A. Certain associates and myself.
Q. Including that company?
A. That is not determined.
Q. What do you use that name for?
388 A. That name represents the oldest, the pioneer, power transmission company of the world; that is why I use the name.
Q. What do you use it for unless it has something to do with this enterprise?
A. It has something to do with this enterprise.
Q. What has it to do with it?
A. Its engineers are the engineers who have done the advance work of long-distance transmission in the world. By an arrangement with that company I have a right to use these engineers for my work when not required for the company.
Q. Do you have a right to use its name when you get out among strangers?
A. I think I have, but I believe I never have made use of that privilege.
Q. Haven't you put it on your office down here?
A. No, sir.
Q. Has anybody put it on the office, on the door of an office here?
A. It is on the door and on the windows and certain other places.
Q. Who had it put on?
A. It was put on by the clerk left here.
Q. With your consent?
A. No, sir; not even with my knowledge.
Q. Against your consent?
A. Had I been here it would not have been put on.
Q. Have you ordered it discontinued or erased?
A. I have not.
Q. You are holding it out as the company that is running this business, are you not?
A. No; certainly not.
Q. No such thing at all; leaving no such impression as that in this community?

A. We have left that for a few days and with this good
389 reason, that the engineering work which has been done has been done by the engineers of the Telluride Power Transmission Company, and therefore partakes of their character and of their ability, and for the reason that having been put there and it being very probable that the Telluride Power Transmission Company will take this work immediately after these suits, I see no reason to be in special haste to tear it off.

Q. This suit has something to do, you think, with whether that company will have anything to do with it or not?

A. Emphatically, it has.

Q. So you mean to be understood that up until now that company has no beneficial interest in this enterprise?

A. Not necessarily.

Q. Well, has it any?

A. Not necessarily.

Q. Can't you answer that without qualification?

A. I cannot.

Q. Has it any interest at all now?

A. Not necessarily.

Q. I ask for a straight answer to that question without qualification.

A. I will explain, if you say that that is — a straight answer.

Q. Well, you can say whether it has or not.

The COURT: Give as definite an answer as you can.

A. That is as definite as I can give. If the gentleman wants me to explain, I will.

The COURT: Mr. Nunn says that is as definite an answer as he can positively give.

Mr. THURMAN:

Q. That company is not furnishing any of the capital by which this work is being promoted?

A. Not necessarily.

Mr. THURMAN: I insist, if the court please, that he answer that question by yes or no.

390 The COURT: Is that the best answer you can give, Mr. Nunn?

A. Without explanation, that is the best I can give.

Mr. THURMAN: I insist on an answer to that question, yes or no.

Mr. BROWN: He has a right to explain.

The COURT: Yes; but the explanations usually come after the answers.

Question read.

Mr. THURMAN:

Q. You say that is the best answer you can make—not necessarily.

A. That is.

Q. Very well; I will leave you.

A. Without qualification.

Q. I will leave you at that point; the best answer is what I want. What is the capital stock of the company?

A. Fifteen millions.

Q. Fifteen millions; paid up, I suppose.

A. Not all of it; not all of it issued.

Q. Whose money is being used in this enterprise?

A. I do not know.

Q. You do not know? Who pays out the money to these men?

A. Several persons.

Q. Who?

A. Mr. Holbrook, Mr. Hoyt.

Q. Who pays him what he pays?

A. Mr. J. B. Bailey.

Q. Mr. Bailey; who pays Mr. Bailey?

A. No one pays Mr. Bailey.

Q. Where does he get the money that he pays?

A. Out of the Provo savings bank, I believe.

Q. How does it get into the bank?

A. By drafts.

Q. Whose drafts?

A. Sometimes his drafts; sometimes my drafts.

Q. What are they drawn on?

A. Drawn on—sometimes on one man, sometimes on another; sometimes on the First National Bank of Telluride; sometimes on L. L. Nunn.

Q. Is there any particular reason, Mr. Nunn, for withholding this information?

391

A. I have offered to explain it.

Q. Or hide it?

A. I will explain it any time I am permitted to do so.

Q. I asked you whose money was being used and you said you did not know. Do you mean to say to this court that you don't know what money is being used in this enterprise?

A. I know all about it.

Q. Well, why did you say you did not know?

A. Because it is uncertain.

Q. And yet you know all about it; it is uncertain?

A. It is uncertain as to whose.

Q. What date did you—what date was it when you instructed Cramer to put a stake on the 60-foot level?

A. It was either the last of February—the latter part of February or the fore part of March.

Q. Did you write the notice?

A. I believe that I simply dictated it in answer to the question as to the notice. I replied that there was no special authority in law of putting up a notice, but it wouldn't do any harm, and he immediately put up a notice something like this, and I think he wrote it down as I dictated it to him.

Q. You think he followed your dictation?

A. I think so; yes.

Q. Have you seen the notice?
A. I saw it on the stake; yes.
Q. You think, after seeing the notice, that it followed your dictation?
A. I am inclined to think so; yes.
Q. Throughout?
A. I am inclined to think so.
Q. That is the same notice introduced—identified by Mr. Cramer?
A. I think so; I haven't seen that notice.
The COURT: You heard it read here?

Mr. THURMAN:

Q. Haven't seen that notice?
392 A. Yes; I heard it read.
Q. You heard it read from beginning to end?
A. I think so; yes.
Q. Now, you also say you told them to put a stake on the 85-foot level, 25 feet above the 60, but you didn't give the date when you gave that instruction?
A. Well, that instruction——

Mr. BROWN: You are mistaken about him not giving the date.

Mr. THURMAN:

Q. Well, if he gave it I didn't get it. What was the date of that, exactly or approximately, as you are able to give it?
A. The last notice of the 85-foot level?
Q. Yes, sir.
A. It must have been very close to the time it was put up, which was testified here as April 25th, I believe. I know I instructed it to be done at once, and I believe it was done at once.
Q. Well, was there a notice put up there or just a stake?
A. I never saw that notice; simply as it was testified to that the notice was put up, but I never saw it.
Q. I don't remember such testimony.

Mr. BROWN: Well, there was; the notice written on the stake on the level with the 85-foot reservoir.
Mr. HARKNESS: It was a marked stake, is all?
Mr. BROWN: Yes; that notice was marked on it.

Mr. THURMAN:

Q. Is it customary in erecting a power plant—I will withdraw what part of the question I put there. That is all.

Redirect examination.

By Mr. BROWN:

Q. Won't you explain fully and completely your financial relations with the company so far as these private schemes are concerned?

393 A. Our company was not inclined to carry on certain speculations respecting the investigation for water powers. A certain number of those who had been most advanced in the work agreed between themselves that they would act as a syndicate and be the advance movers in this respect.

Q. Was you one of those?

A. I was one of those, and they were all members of the company, and it was all done in the usual friendly manner, with the understanding that whatever they found should be reported to the company and offered to the company first on such terms as the syndicate thought best. In consideration of such proposition and such offer, we were permitted to use the engineers and anything pertaining to the company which was—which we could make use of and keep a fair account and have that produced in the final adjustment. When I represented the merits of the Provo Canyon power I stated it to our company as a 10,000-horse-power plant. It was understood that the company would take it, and I was instructed—given permission—to use money out of the treasury of the company for the purpose of carrying it on. Later on, when the litigation commenced, I was compelled to say to our company, "Gentlemen, I may have misled you unintentionally. If we have no right to a reservoir, we cannot obtain half that power. As you have always said that you did not want anything less than 10,000-horse power, that may have to be thrown back onto the hands of the syndicate." And I was instructed by the directors to allow that matter to drift on until the result of this suit.

Q. Leaving it open?

A. Leaving it open. Consequently I have used money from the treasury of the company, I have used my own individual money, I have used syndicate money, and it is simply carried on the books of the company as the Provo plant, abiding the result of this
394 litigation and the rights which we have to make a 10,000-horse-power plant or perhaps a four or 5,000 horse-power plant.

Q. And they had the option, in other words, to take this property?

A. Absolutely; and will take it, unquestionably, if we can show a 10,000-horse-power capacity.

Q. And the money that you have used for the plant was first your own?

A. First my own, and then the syndicate.

Q. And then the company's money?

A. And then the company's money.

Q. And some of these gentlemen that you call the syndicate?

A. Yes, sir.

Q. Is there any corporation about these persons you call the syndicate?

A. No, sir.

Q. Who are the syndicate?

A. Mr. James Campbell, of St. Louis; R. F. Kane, of New York; Ezra Rose, of Saginaw, Michigan.

Q. Who are the Telluride gentlemen? Mention by name all of them.

A. Mr. S. A. Bailey.

Q. Steve?

A. Yes; Steve; P. M. Nunn, and M. A. Wrench.

Q. A. M. who?

A. M. A. Wrench.

Q. And for these people who does the acting—who is the authorized moving parties?

A. Well, I always act until I get too fast, and then sometimes they call me down.

Q. Well, you have done the business?

A. Certainly, certainly; entirely.

Q. And are still doing the business?

A. Still doing the business.

Q. And when you said you did not know whose money was being used, you mean you do not know which one of these it will ultimately fall to?

A. Certainly; it was simply carried in open account at the present time.

395 Q. You were asked about the location of this notice and asked——

The COURT: You mean on the 85-foot.

Mr. BROWN:

Q. No; on the 60-foot first, and asked if it was as you dictated. You said you thought it was substantially as you dictated. Was it placed in the locality where you dictated it to be?

A. Not where I instructed it, as I intended.

Q. Where did you intend to instruct it to be?

A. On the 85-foot level, allowing 25 feet for a reservoir capacity.

Q. So that your intention was that a notice of that kind should be posted up 85 feet above the river?

A. Certainly.

Q. And when you saw where it had been put you directed a notice to be put up on the 85-foot level?

A. Certainly.

Q. Did you explain on your direct examination as fully as you desired the necessity of a 25-foot storage above the point where the waters come out of the dam?

A. I think I did not explain that at all.

Q. I wish you would very fully, if you have not.

The COURT: Just read that again; I did not hear it.

Mr. BROWN:

Q. The necessity of the 25-feet storage above the point where the water is to be taken out. I understand this claim is for a 25-foot storage of water above the highest level where it comes out.

A. After going to a great deal of trouble and expense I concluded from all the evidence furnished that there were two seasons of short

water, one in August and September and one in the winter time, failing through January, February, and sometimes occasionally in March, that we could not depend upon more than 10,000 minute feet per thousand through the short periods; 10,000 minute feet would give on the best elevation that could be taken out of the river direct not quite 4,500-horse power; if taken out at the
396 60-foot level it would increase that about one-fifth, making not quite 5,500-horse power. Most of the year there is an abundance of water for the 10,000-horse power, much more than that; consequently we needed a storage which would supply the amount needed to make the minimum condition of the water equal to the water which we required all the year round in order to give regular power; that was about 10,000-horse power, about 10,000 cubic feet per minute that we required more, being a total of 10,000 minute feet all the year round.

Q. Now, with that necessity before you all the year round, when was it you intended to add the storage to the dam?

A. Let me finish that explanation.

Q. All right; keep right on until you get through with it.

A. The extreme shortage of water, of course, starts and remains only for a day or two, sometimes not more than a day, and then runs out wider and wider, so that there might be 60 days' shortage for 1,000 minute feet, and not more than two or three days' shortage for 10,000 minute feet, and by calculations we figured that an equivalent of 10,000 cubic feet for 20 days, being approximately 450 millions of cubic feet, would supply these two periods of short water. Then it became evident that we must have a reservoir of that capacity, and that was what determined the size of the reservoir, and for that reason I instructed the 60-foot line to be run along from the — above the mouth of the flume clear around practically to the head of the canyon, so that the calculation of the size of the reservoir could be made by knowing the size at the 60-foot level and at the 85-foot level. Having received that data, we agreed upon the 85-foot level.

Q. You intended, then, at that time to build the extra storage?

A. Certainly.

Q. When was that data received?

A. We decided upon the building——

397 Q. (Interrupting.) What day and year was that data received?

A. Within a very close per cent., it was received in November.

Q. Of what year?

A. Oh, 1895; but it was not actually received, but we calculated it, until March of the following year, but it was approximately received in November, at the time Mr. Campbell was here.

Q. Well, then, the storage—the determination or expectation or intention to build the reservoir for the storage—was concurrent with the expectation to build the permanent plant?

A. Absolutely; it is impossible to make a permanent plant of any size without the storage.

Q. Did you state how much horse-power you expected to obtain from the little temporary plant? If you did not, I want you to.

A. I did not; no.

Q. Go on.

A. Very nearly 2,000-horse power.

Q. Have you explained, as fully as you care to, how you expected to use that 2,000-horse power?

A. Well, we figured that we would require from 1,200 to 1,500 horse-power on our works there at the time of the hydraulicing, at least, and the remainder of power we have been anxious to give to the market either in Tintic or Mercur as soon as possible preparatory to the main plant.

Q. When you get your permanent plant in running order, can you transfer the machinery and other things, the part which you require for the temporary, to it?

A. No.

Q. The flume?

A. No; oh, we could probably use the electrical ap-aratus in connection with it, but the flume would not be what would be required there. We figured on shipping that up to Cache valley on the Logan plant.

Q. It is portable so that you could use it elsewhere?

398 A. Certainly; we figured on using that elsewhere, but not in connection with this plant.

Q. In your intentions did you expect to stop work on the permanent plant at any time in consequence of the temporary?

A. No, sir.

Q. Keep right continuously at it?

A. Yes, sir.

Recross-examination.

By Mr. THURMAN:

Q. I think you say you dictated this notice?

A. I think so; I think that is as I dictated it. I remember telling Mr. Cramer substantially what it was.

Q. And you—I will say that is an exact copy of this.

Mr. BROWN: All right, go ahead, I will take your word for it.

Mr. THURMAN (reading): "I hereby claim, for the purpose of constructing a reservoir, all the land laying up this stream below the level of this point, and propose to use the same for a reservoir by the erection of a dam at this point, so constructed that it will retain the water of this stream on a level with this notice.

I propose to use the water for agricultural and manufacturing purposes.

The water is to be conducted from this point to the mouth of the cañon and thence on the benches of Utah valley."

A. Yes, sir.

Q. Now, you propose to take it from that point where that notice was?

A. *A*. Practically.

Q. If you proposed to take it from the point where the notice was, and designed that the notice should be put on the 85-foot level, where was your storage going to be, according to your intentions?

A. It is never customary to place a notice for the taking out of water——

399 Q. (Interrupting.) Well, now, answer my question.

The COURT: And then explain.

A. What is the question?

Mr. THURMAN:

Q. If you intended this notice to be put on the 85-foot level and have the water conducted from the point where the notice was put, where was your storage of water going to be?

A. I was trying to answer that; I will answer it now, if you will permit me.

Q. Well, now, tell me where the storage was going to be, if the water was to be conducted, I suppose, by a flume from the 85-foot level.

A. The storage was 25 feet from the 60-foot waterway to the top of the water line of the reservoir.

Q. I didn't write the history there, surely.

Q. Now, you say the water is to be conducted from this point—that is, where the notice is put?

A. That is the usual notice that is put on the bank above the river, and the river is always below the bank.

Q. That is, you designed this notice to be the height*h* of your highest level.

A. The height*h* of the reservoir.

Q. The height*h* of the reservoir?

A. Yes, sir.

Q. And from the point where the notice was put you designed the water should be taken from a reservoir not in altitude?

A. Certainly not; the notice is never so recorded.

Q. This notice, then, doesn't express your actual intention, does it?

A. So far as altitude is concerned the notice never does; it would have to be put in the water.

Q. You answer my question as to whether this notice expresses your actual intention.

A. That notice expresses the actual intention as to the point in the country where the water should be taken out of the reservoir exactly.

Q. As to the point where the water was to be taken out?

400 A. As to the point, not in altitude, because the notice could not be on the level with the water.

Q. You gave these instructions to Mr. Cramer, didn't you?

A. Yes.

Q. He is an experienced engineer, isn't he?

A. Yes.

Q. Even in electric power?
A. No, sir; no, sir.
Q. Isn't he?
A. No, sir; never purports to be.
Q. Well, he is an experienced engineer?
A. Yes, sir.
Q. You gave him this instruction?
A. Yes, sir.
Q. And he acted as you have said, by putting the notice where you in your mind did not intend it?
A. Certainly.
Q. How much land did you and your syndicate and your company own in this valley?

Mr. BROWN: What valley?
Mr. THURMAN: Utah valley.

A. I do not know that I understand your question fully. Do you mean purchased or located?

Mr. BROWN: I do not see the purpose of it; it is immaterial and not cross-examination.
The COURT: What is the purpose of it, Mr. Thurman?
Mr. THURMAN: In looking over the notice I see it says something about the benches of Utah valley. I want to know if they own any land down here.
Argued to the court at length by respective counsel.
The COURT: As to its form, the objection will be sustained—the form that it is in now.
Mr. THURMAN: I note an exception to it. That is all.

Mr. BROWN:

Q. You were asked by Mr. Thurman as to whether—as to the interpretation of this notice that was put in, as to whether it ex-
401 pressed your intentions or not. Does the notice express anything as to your intention as to the altitude of the place where you would divert the water?
A. Well, I should think so, but there I must put on the construction——

Mr. THURMAN: I object to the question and move the answer be struck out.
Mr. BROWN: What is the objection?
Mr. THURMAN: The objection is the notice is the best evidence of what the intention was.
Mr. BROWN: All right; if you think the notice is the best evidence, I do and I will pass the witness.

L. L. NUNN recalled for defense.

Examined by Mr. BAILEY:

Q. Mr. Nunn, will you state how much approximately, if you can—how much money has been expended upon this enterprise in Provo canyon prior to the 10th day of September, 1896?

A. Up to that date, approximately $75,000.

The COURT:

Q. To what date was that?
Mr. BAILEY: The 10th of September, 1896.

Mr. WEDGWOOD:

Q. How much?
A. Approximately $75,000.

Mr. BAILEY:

Q. How much of that has been expended in actual work in the canyon in surveying and construction?
A. There was about forty-five of that has been expended here and thirty thousand expended in connection with this enterprise elsewhere.

402 Cross-examination.

By Mr. WEDGWOOD:

Q. $45,000 has been expended here. Is that correct, Mr. Nunn?
A. Yes, sir.
Q. In what has that forty-five thousand been expended prior to September 10th, 1896?
A. The purchase of property——
Q. I want the items, Mr. Nunn.
A. I cannot give that, sir, from memory.
Q. Can you give the largest items?
A. I can give a number of them; yes, sir. I can give some.
Q. Give me the largest items.
A. There has been about——
Q. (Interrupting.) I don't want about.
A. I only know—you must take about; that is all I can give you, unless I bring accounts.
Q. Well, go ahead, maybe I will ask for them later. You may give us to the best of your recollection.
A. Approximately, I should say seven thousand has been expended in obtaining rights of way to real-estate titles.
Q. Seven thousand right of way? Give me the items that make that up, Mr. Nunn.
A. Well, I cannot entirely.
Q. Where are the lands that were purchased with this $7,000?
A. Along Provo canyon.
Q. Well, name the different pieces
A. You are calling for items in a very large matter, and I do not recollect them. I recall the figures.
Q. Well, Mr. Nunn, all large matters are made up of small matters?
A. Yes, sir.
Q. And as a man—a business man—you know about what those small matters are?

A. Not all the matters I have.

Q. Well, you have a knowledge that $7,000 has been ex-
403 pended. Now, tell us of one piece.

The COURT: Give it as near as you can recollect, Mr. Nunn. Of course, if you can't——

A. I do not know; I commenced to pay in 1890.

Mr. WEDGWOOD:

Q. Do you know of one piece of property that was purchased?
A. Yes, sir.
Q. Now, what piece of property was that?
A. The interest that Mr. Ferguson had.
Q. How much was paid for that?
A. I am not sure; I believe it was $2,500.
Q. $2,500. Has it all been paid?
A. About that I am not sure. I am sure that $1,500 was paid. I am not sure, because nearly that entire transaction was done by Judge King.
Q. Then, there has been $1,500 paid on that that you know?
A. I am sure.
Q. What other piece of property?
A. The property that had rights that were purchased.
Q. Well, just one right.
A. I am absolutely unable to tell the names of any of those from whom interests were purchased in the early part of the time.
Q. Well, now, can you give me one particular interest that was purchased without giving the name—tell us where it was?
A. No; I cannot. I know that we purchased a right——
Q. (Interrupting.) That answers the question, Mr. Nunn.
A. All right.
Q. Now, have you got a record of these expenses?
A. Unquestionably; yes, sir.
Q. Now, $7,000, real estate and right of way. Now, what else—what other item?
A. $8,000 on a flume contract.

Q. What other?
404 A. In the neighborhood of $4,000 in actual work which has been done on the temporary plant—that is, the——
Q. (Interrupting.) That is, labor, and what does that consist of?
A. It consists largely in grading. Quite a considerable of it must have been in changing the road to a certain extent where the large dugout is. I presume that you have seen it there.
Q. That is grading. What else?
A. Well, that is substantially all.
Q. That is substantially all that has been spent here?
A. No, sir.
Q. Well, give me the other items that make up this $45,000.
A. I have given you three items.
Q. $19,000 you have given me; now, give me the others.

A. The other has been, I think I am correct in saying, practically the surveying expenses from the time that we came, in 1894.

Q. $26,000 surveying expenses?

A. I think so; yes, sir.

Q. Have you got a record of those?

A. Unquestionably; yes, sir.

Q. Now, what is this $30,000 expended elsewhere?

A. I can tell you very nearly, but I am sorry you did not inquire of another witness more exactly—the work.

Q. I don't care; I won't press you on that, Mr. Nunn. Now, how have these payments been made, Mr. Nunn? They have all been made here, have they not—$7,000 for real estate and right of way, $8,000 for flume, $4,000 for grade, and $26,000 for surveying expenses—that money has been paid out here?

A. No, sir; I think that there has been about $26,000 checked out here.

Q. $26,000 checked out here. Now, would that include the right of way and real estate? Was that all checked out here?

A. No, sir.

Q. Where was the balance checked out?

405 A. That was not checked out here; principally in Telluride.

Q. In Telluride?

A. Yes, sir.

Q. What was it checked out in Telluride for—who to in Telluride?

A. First to the engineers, whose headquarters are there, of course.

Q. Whose headquarters are there, I know, but six or seven thousand dollars is for right of way, and——

A. (Interrupting.) Well, I do not remember. I remember that there has been different requisitions made on me, at Telluride, for the claims here.

Q. Well, hasn't all the claims that have been settled here gone through the bank here?

A. No, sir.

Q. What claims have not gone through the bank here?

A. All claims have not gone through the bank here which have been paid in Telluride.

Q. Well, now, give me one claim for real estate and right of way in this canyon that was paid out at Telluride.

A. Well, I answered that I was not familiar with those claims.

Q. You can't tell that?

A. I believe I can furnish you with the trial balance of the company, which would show that.

Q. Of the company?

A. I believe so.

Q. Then the company paid out for this right of way?

A. Only a part of it, as I said this morning.

Q. I wish, Mr. Nunn, by tomorrow morning you would bring in a statement of this $7,000 right of way and real estate. You undoubtedly have that.

A. I think probably I can do it in a few minutes.
Q. Now, this $26,000 that was paid out for surveying expenses?
A. Not for surveying expenses; no, sir.
Q. Well, engineering expenses.
A. No, sir; I said that was principally engineering ex-
406 penses, but that it is too much to expect a man to be called on for the details of a transaction without notice.
Q. Yes; but we would like to know in this matter what the details are.
A. Certainly.
Q. You have testified to the gross amount.
A. Certainly.
Q. Now tell us what the portion—one item of this $26,000 that was checked out here.
A. What is that, sir?
Q. Tell us one item of this $26,000, engineering expenses, that was checked out here through this bank here.
A. It was not checked out here at all.
Q. None of that $26,000?
A. That is what I said.
Q. $30,000 was not checked out here, Mr. Nunn? That is the way I understood it.
A. $26,000—no, I said about $26,000 had been checked out here. Now, what is your question?
Q. The items that you have given me, Mr. Nunn, $7,000 for right of way and real estate, $8,000 for flume, and $4,000 for grading, make, if I figure it rightly, $19,000?
A. Yes.
Q. And that would leave $26,000 for principally engineering expenses. Then, in addition to that, you said there had been $75,000 spent, forty-five of it here and thirty expended elsewhere. Now, so far as that thirty is concerned, I said I wouldn't press you on that, but now I am taking the $26,000 that remains, which you say is principally engineering expenses, after taking the nineteen from the forty-five. Now, I want to know some of the items that constitute that $26,000.
A. I think that the work done here would almost entirely make up the difference between the nineteen and the twenty-six, because——
Q. (Interrupting.) No; not nineteen——
407 A. Because there has been very little paid to the engineers from this account here.
Q. No. Understand me, Mr. Nunn; let me put it in a way so that we can make no mistake about it. I want to get at this a little bit closer. Now, you say the $45,000 has been expended here; now, of that, $7,000 is real estate and rights of way, $8,000 is for flume, and $4,000 is for grading. That would be nineteen.
A. Now, put down seven more for other work performed here.
Q. Well, you may—just a minute now—that would leave still a balance of $26,000?
A. Yes.

Q. Now, you may put down there as you see fit. We can understand it now. Now, give me the items making up that $26,000.

A. I believe I gave you the items. I think there has probably been about $7,000 paid in work here, and there has been the balance paid to the engineering force in Telluride; principally to the engineering force.

Q. In Telluride? Now, there has been, then, $19,000 paid to engineers in Telluride on account of this plant?

A. I think fully that.

Q. You think fully that?

A. I think so; yes, sir.

Q. Any part of that the salary of the Telluride Company engineers?

A. Yes, sir.

Q. This is their salary—that would be their salary, wouldn't it?

Mr. BROWN: What is that; of the nineteen thousand?

Mr. WEDGWOOD:

Q. That was their salary?

A. That was their salary, certainly.

Q. And that was paid them there as being officers of the Telluride Power Company, at Telluride?

A. All of them received their salaries by the year, and their work here is charged——

Q. Just please answer my question, Mr. Nunn.

409 Question read by reporter.

Q. As being employees of the Telluride Power Company?

A. Yes, sir.

Q. Then their salary at Telluride as officers of that company is charged up to this account?

A. Charged up to the Provo plant.

Q. You understood, Mr. Nunn, that this was all prior to September 8th or 10th?

A. Yes, sir.

408 On page 356 insert the following:

Defendants also called as witness Mr. Buehler, who testified to making sundry maps for defendants, which maps were placed in evidence as exhibits and are to be used by either party on the hearing of this case.

Defendants also called a number of witnesses to testify to the amount of extra expense that would be entailed by building a railroad through the Provo canyon at a height sufficient to go above the proposed 85-foot dam, the effect of their testimony being that said extra expense would be from 20 to 40 thousand dollars extra.

This constituted the entire testimony of defendants.

In rebuttal, plaintiff called as a witness D. C. DODGE, who gave the following testimony:

409 D. C. DODGE called and sworn in rebuttal.

Examined by Mr. HARKNESS:

Q. Mr. Dodge, you are the general manager of the Rio Grande Western Railway Company?

A. I am.

Q. How long have you been the manager of the Rio Grande Western?

A. Since 1889.

Q. Since the organization?

A. Since the organization.

Q. Was you also general manager of the Denver and Rio Grande Western Railway Company?

A. I was.

Q. Are you consulted by the company in regard to construction work, where and when it shall be done?

A. I am.

Q. Who gives directions in regard to construction?

A. The president.

Q. Through you?

A. Through me.

Q. For how long was you the general manager of the Denver and Rio Grande Western?

A. About six years.

Q. From the time of its organization?

A. No; I was connected with the road for much longer, but not as general manager.

410 Q. Since the organization of the Rio Grande Western Railroad Company, what construction work have you been engaged in?

Mr. BROWN: I object to it as not rebutting anything we have put in evidence and as not material. Had it been material at all it was their direct case; certainly does not answer anything we have put in.

Mr. HARKNESS: If the court please, there is nothing in our testimony that tends to show any bad faith in locating and commencing the construction of this line up in this canyon, but it was commented upon and said that the work was begun simply as a bluff, as they put it, and I understand the court wants to get at the intention of both of these parties in the work that they have been doing. They have come into court and tried to prove that the railway company did not intend to build a road up the canyon by proving the small amount of work that was done up the canyon. We propose to show why that was done.

Argued to the court by respective counsel.

The COURT: It is greatly the desire of the court that we should not engage in our effort to rebut by introducing incompetent testimony; the principal purpose of rebutting testimony is to refute or

counteract or explain the evidence that has been given. Now, that we may not open the door too far in this rebutting testimony and make this case an endless chain, I very much desire to watch that. The explanation, as the question stands, while we have introduced or permitted evidence here to explain, to give the intention of the parties, I think I should permit that. I will let the question go in; overrule the objection; but I hope that we will not border upon the procedure that will open the question—that will open the entire case—and introduce a sort of a see-saw.

Exception taken by the defense.

Mr. BROWN: Of course, we shall have to introduced in ser-
411 rebuttal to show that they did not have any such intentions.

The COURT: I have given quite a latitude to show the intention of both of the parties. I do not want it carried too far.

Question read by reporter.

A. The first work was widening the gauge of the line from Ogden to Grand Junction.

Mr. BROWN: Now, what materiality is that? I object to it, and move to strike it out. It is utterly immaterial in this case.

Answer read by reporter.

The COURT: Was that under the new organization?

A. It was.

The COURT: Answer the question; take an exception.

Exception taken by the defense.

Mr. HARKNESS:

Q How many miles was that?

A. 328 miles; practically building.

Q. Practically rebuilding?

A. Or rebuilding.

Q. How long did it take?

A. It took about two years.

Q. I suppose work of that kind has to be done largely on credit?

Objected to as immaterial.

A. It has.

Mr. HARKNESS: I desire to show that this company has been engaged in constructing its lines just as fast as it could—as fast as the condition of the company would permit; that it has never abandoned this line at all. This eastern country, not being so urgent, that it was left for a while. In other words, that they have got around to that line just as quick as they could.

Argued to the court.

The COURT: Read the question again, Mr. Reporter.

Question and answer read by reporter.

The COURT: Let the answer remain.

Exception taken by the defense.

Q. What other lines have you built since that?

412 Mr. BROWN: Object to that, may it please the court, as entirely immaterial and not rebuttal.

The COURT: I have permitted testimony on the part of the defendant to show how they have prosecuted their work and what time it was going to take to complete. I do not wish to go further in this; I do not think it is pertinent, unless it is to show the good faith of this plaintiff company about not maintaining their so-called or alleged franchise in that canyon. Answer the question.

Exception taken.

A. We have built lines to the Tintic mining district and from Thistle nearly to Marysvale, and the line to Tintic was about 50 miles; the Marysvale is 127 to '30 miles.

Q. During what years was you engaged in that work?

A. The Tintic we completed the first of January, in 1892; the line to Belknap, near Marysvale, was completed a couple of months ago; nearly two months ago.

Q. Did you regard the development of the country such as to be more favorable to Tintic and to Marysvale during those years than up the Provo canyon?

Mr. BROWN: I object to that.

The COURT: I think their acts would show that.

Mr. HARKNESS:

Q. All right. What examinations have you made or caused to be made of the Provo canyon?

Mr. BROWN: I object to that as not rebutting; that is just what they went into in the first instance.

Mr. HARKNESS: It is the prior years we want to show that that canyon was always kept in contemplation.

Mr. BROWN: Well, prior years has nothing to do with this. It is your case to attempt to show when your right attached. If it doesn't tend to show when your right attached, it, of course,
413 is immaterial; if it tends to show when their right attached, then it surely was their right to introduce it in chief.

Argued to the court.

The COURT: For the purpose of explaining the intention of the company, I think it is eminently proper, in so far as their franchise or their failing or their design with regard to whatever franchise they claim there. For that purpose I will permit it.

Mr. BROWN: If it needed explanation, wasn't it their case-in-chief?

The COURT: Well, they put their employees on here; it was permitted on the part of the defendants to put their employees on, and then put the principals on here to confirm what they had stated.

Mr. BROWN: Their right, may it please the court, to put in their poor witnesses first, and then put on their big guns afterwards?

The COURT: No; I don't mean that, Mr. Brown.

Objection argued still further to the court by respective counsel.

The COURT: Answer the question, and take an exception.

Mr. BROWN: Oh, I shall, your honor; I do.

A. We had the canyon examined by our chief engineer.
Mr. BROWN: What was the answer?
A. We had the canyon examined by our chief engineer.

The COURT: Now, just a moment, Judge Harkness. Confine yourself, as far as you can, to that matter pertaining to the supporting of the alleged franchise that you people claim in that canyon.
Mr. BROWN: I wish to strike out the answer for another reason—it appears to be entirely hearsay. It appears to be no act within his knowledge. He says, "We had the canyon examined by our chief engineer."

The COURT: Answer if you personally, Mr. Dodge, have had
414 anything to do with this matter of establishing or arranging for the establishment of any line there.

A. It was always intended by the company to go through that canyon.

Mr. BROWN: Well, wait a moment; the question of intent has not been asked. I object to him saying what was intended.
The COURT: Answer the question.

Mr. HARKNESS:

Q. The question was about what examinations you had made or directed up the canyon.

Mr. BROWN: I make the same objection to that.
The COURT: The same ruling.
Exception taken.

Mr. HARKNESS:

Q. With a view to its practicability for a railroad?
A. As I say, our chief engineer was directed to make the examination.
Q. When was that first?
A. Some time prior to 1890.
Q. Since that have you directed any examinations?
A. Since that time instructions were given to make an absolute location of line through that line.
Mr. BROWN: Was that instruction in writing?
A. Yes, sir.

Mr. BROWN: I move to strike out the answer what it was unless the writing is introduced.
Mr. HARKNESS: In their case, your honor, we did not make such little petty objections as that.
The COURT: Well, he has a right to object.
Mr. BROWN: I object now to his testifying to that and demand the writing.

The COURT:

Q. You say, Col. Dodge, that these are in writing, these instructions?
A. They are.

Mr. HARKNESS:

Q. All of them in writing?

415 A. They may not be absolutely all of them; I think most of them.

The COURT: Have you those, Judge Harkness?

Mr. HARKNESS: We have some of them anyway; some were necessary to be verbal.

Q. To whom were those instructions given?

A. Mr. Yard.

Q. Did you frequently meet Mr. Yard and give personal, oral instructions?

A. I did.

Q. Sometimes you wrote them?

A. Sometimes I wrote them.

Mr. HARKNESS: It will take us a little time, your honor, to get these in shape.

The COURT: Very well.

Mr. HARKNESS:

Q. I show you a letter dated November 1st, 1895, and directed to E. J. Yard, engineer; did you write that?

A. I did; I signed it.

Q. Well, it is your signature?

A. It is my signature.

Mr. BROWN: I object to it as irrelevant and immaterial and not rebutting, and not shown that Dodge was authorized to do it.

The COURT: Let it be admitted.

Exception taken.

Mr. HARKNESS: reading.

"Rio Grande Western Railway Co., office of second vice-president and general manager.

DENVER, COLO., *Nov.* 1, 1895.

E. J. Yard, resident engineer, Salt Lake City, Utah.

DEAR SIR: Did you ever make an estimate of cost of line via Provo canyon to Park City? If not, have you in your office copy of report made by anybody else? If so, please send me copy.

Yours truly,

(Signed.) D. C. DODGE."

416 Q. I show you a letter dated March 5th, 1896, and ask you if that is your signature and if you wrote that letter to Mr. Yard.

A. Yes, sir; I dictated it and signed it.

Mr. BROWN: Same objection.

The COURT: Let it be admitted; the same ruling.

Exception taken.

Mr. HARKNESS, reading:

"Rio Grande Western Railway Co., office of second vice-president and general manager.

Park City Extension.

DENVER, COLO., *March 5th*, 1896.

Mr. E. J. Yard, resident engineer, Salt Lake City, Utah.

DEAR SIR: Take the best locating engineer you have and put him at work in Provo canyon. We want the best line that can be found in the cañon at reasonable cost.

Since commencing this letter, I have received yours of the 3rd inst. My idea is to locate through the Provo cañon first; afterward extend the location to Park City. I agree with you that it may be better to start from American fork instead of Provo, as I think your line down the Provo river will be pretty well up on the bench. If there is too much snow in the Provo cañon at present to do work satisfactorily, we will wait a week or two, but cannot afford to wait as long as May 1st.

How much longer will the line be that we have to build to American fork than to Provo, and how much will it shorten the whole line, Park City to Salt Lake City?

Let me know by telegraph about how soon you think you can commence this location.

Yours truly, D. C. DODGE."

Mr. HARKNESS:

Q. I show you a letter, March 30th, 1896, directed to Mr. Yard; ask you if you dictated and signed that.

417 A. I did.

Mr. BROWN: Now, I presume it is upon the same subject; I simply make the same objection.

The COURT: Same ruling.

Mr. BROWN: Take an exception to this as before.

Mr. HARKNESS, reading:

"Rio Grande Western Railway Co., office of second vice-president and general manager.

Park City Extension.

DENVER, COLO., *March* 30, 1896.

Mr. E. J. Yard, resident engineer, Salt Lake City, Utah.

DEAR SIR: All work done in Provo cañon will be paid for by Rio Grande Western Railway Company and charged to account of advance surveys. Keep everything in connection with the survey of that line separate from everything else.

Yours truly, D. C. DODGE."

Q. I show you a letter dated May 15th, 1896; ask you if you dictated and signed that and sent it.
A. I did.

Same objection; same ruling.
Exception taken.

Mr. HARKNESS, reading:

"Rio Grande Western Railway Co., office of second vice-president and general manager.

Park City Line.

DENVER, COLO., *May* 15, 1896.

Mr. E. J. Yard, resident engineer, Salt Lake City, Utah.

DEAR SIR: I understand General Palmer will pass through Utah on the 20th and will return with Mr. Peabody and myself to Utah between the 26th and 28th of this month.

I would like, by the time we arrive there, all the information possible in regard to Park City line, especially the estimated
418 cost through Provo cañon, say from Provo to Heber city. How far has your surveying party located?

How are you getting along with the Sevier extension?"

Mr. HARKNESS: Well, this refers to another.
Mr. BROWN: Oh, don't read any more than you want.
Mr. HARKNESS, reading:

"Yours truly, D. C. DODGE."

There is a clause there in regard to work on the Sevier extension.

Q. I show you a letter dated June 13th, 1896.
A. I dictated and signed that.
Q. You dictated and signed that?
A. Yes.

Mr. HARKNESS, reading:

"Rio Grande Western Railway Co., office of second vice-president and general manager.

DENVER, COLO., *June* 13, 1896.

Mr. E. J. Yard, resident engineer, Salt Lake City, Utah.

DEAR SIR: Put some men at work in Provo cañon above the point where the wagon road crosses the Provo river. Have this work done on the line as located, if you are satisfied it is all right. This work should be done on Government land or land not owned or controlled by Nunn or the Provo Reservoir Co. I am informed that he has an option on the Ferguson ranch. If true, we do not wish to do any work on that land. If he has not secured an option on it, I wish you would secure option for our right of way across it at once. Are there any other ranches through which we can secure right of way from the owners or occupants?

If you can arrange with Deal & Mendenhall to do this work at

reasonable prices, we would much prefer to have them do it. Of course we cannot guarantee them any definite amount of
419 work or any definite length of time. They must understand that the work is liable to be stopped entirely on few days' notice. Telegraph me what they will do. Is map of our located line completed and sent off?

Yours truly, D. C. DODGE."

Q. Col. Dodge, in regard to what you say there——

Mr. THURMAN: Judge, the next will, I think, explain what you want.

Mr. HARKNESS:

Q. Oh! I show you a letter dated June 15th, 1896, directed to Yard and purporting to be signed by you. Did you dictate and sign that?

A. I dictated and signed that.

The COURT: It is understood, Mr. Brown, that to all these you except?

Mr. BROWN: I except to all of these. You need not read the signature of Mr. Dodge.

Mr. HARKNESS: I suppose we do not need to read this heading, Rio Grande Western Railway Co., *ect.* It is the same on all, I think.

The COURT: No.

Mr. HARKNESS, reading:

"*Park City Extension.*

DENVER, COLO., *June* 15, 1896.

Mr. E. J. Yard, resident engineer, Salt Lake City.

DEAR SIR: I wrote you Saturday and telegraphed you again this morning in regard to work in Provo cañon. See Judge Harkness and he will explain to you what he has written General Palmer. As we are liable to be stopped in this work, I hardly think it wise to let any contract, but secure a good foreman and set forty or fifty men at work with whatever teams are necessary. If we find they are not interfered with, we can in the near future let a con-
420 tract to Deal & Co. or somebody else.

If there are any places in the cañon owned by private parties, I think we should secure right of way through them. Ask Judge Harkness in regard to this. As the map has gone forward, the sooner this work is commenced, the better. Telegraph me how soon you can commence this work.

Yours truly, D. C. DODGE."

Mr. HARKNESS:

Q. I will ask you what these letters refer to in regard to being interfered with.

A. Being interfered with by Mr. Nunn or the power company in building this dam.

Mr. HARKNESS, reading:

"SAME HEADING, *June* 16, 1896.

E. J. Yard, resident engineer, Salt Lake City, Utah.

DEAR SIR: Your cipher message in regard to work in Provo cañon is received and I have replied as follows:

'Cipher message received. With the understanding that we can stop work at any time, Deal can go to work at prices named in message as quickly as possible, following Judge Harkness' instructions as to where work shall be done.'

As we cannot tell how long we may be delayed, it is very important that the understanding with Deal be very plain, in regard to discontinuing the work at any time we may think advisable. Explain to Judge Harkness location of dam and our line very fully, and follow his instructions in regard to work.

General Palmer informs me he has approved and returned maps to Mr. Colton to be forwarded through local office to Washington. I wish you would see that maps are not delayed by local land officials.

Yours truly, D. C. DODGE."

421 Mr. HARKNESS: I might state that we have here letters coming clear down to nearly to date. I don't know that it is necessary. I will submit them to the other side. Of course, I would not want that one should be put in without the explanation of it.

The COURT: If there be no objection, they may all be considered as in evidence.

Mr. BROWN: Subject to the same objections?

Mr. HARKNESS: Yes.

The COURT: Yes.

Mr. BROWN: Well, with that view I would like these fastened together.

Mr. HARKNESS:

Q. Col. Dodge, how frequently would you meet Mr. Dodge or the engineer personally?

A. As often as once a month and sometimes twice a month.

Q. Was the question answered?

A. I have answered as often as once a month and sometimes twice a month.

Q. At these meetings would you give him oral instructions in addition to those given in writing?

A. I may have done so. I presume I did, but nothing varying from the written instructions.

Q. In the letter of March you speak of the probability or possibility of going to American Fork.

A. I do.

Q. You may state whether the exact survey had been made at that time.

A. Had been made at that time?

Q. Yes.

A. It had not.

Q. What reason had you for thinking the line might go to American Fork?

A. From information Mr. Yard sent me that it would be a shorter line.

Mr. BROWN: Have you got that here, that letter?

A. I have not.

422 Mr. HARKNESS:

Q. Before March 23rd was the matter definitely settled?

A. It was.

Q. From what point was you to start?

A. Start from Provo.

Q. What was the purpose of instructing him to survey and locate a line and put men to work up there?

Mr. BROWN: I object to that as not rebutting.

Objection overruled. Exception taken.

A. May I answer?

Mr. HARKNESS:

Q. You may answer.

A. For the purpose of ascertaining the cost of a line.

Q. What?

A. For the purpose of ascertaining the cost of a line.

Q. Was it with a view to construct a railroad or make a bluff at somebody?

Objected to as leading. Objection sustained.

A. For the purpose of building a road.

Mr. HARKNESS:

Q. What was the purpose?

A. It was for the purpose of building a road through the canyon.

Q. Did you on the 23rd day of March or down until considerably later know that your line would in any way conflict with any right that the defendants here claim?

A. I did not.

Q. When did you first learn that they were to have a dam over 15 feet or 25 feet at the outside?

A. I think it was some time in May or June. It was so reported that they had changed their plans.

Q. Then you discovered your two projects would conflict?

A. About that time; yes, sir. I received notice that they had changed their plans from a 15 or a 20 foot dam to a 60 or 85 foot; I don't know which.

423 Cross-examination.

By Mr. BROWN:

Q. From whom did you learn that that conflict would exist?
A. From our engineer, Mr. Yard.
Q. From no other person?
A. Yes; Mr. Nunn.
Q. Whereabouts did you learn it from Mr. Nunn?
A. What say?
Q. Whereabouts did you learn it from Mr. Nunn?
A. In talking with him, I think, here in—I think it was at Springville.
Q. Remember the date of that talk?
A. Not exactly. I think it was the date that letter indicated or soon after that he would meet General Palmer and Mr. Peabody here.
Q. You said you also learned it from Yard. Have you got his letter informing you of it?
A. I presume I have.
Q. But not here; is it here?
A. It is not here. I am not sure that I have a letter; may have told me verbally.
Q. Did you—did the company pass any resolution on the subject of building a road up to Park City last spring, 1896?
A. The executive committee of the board——
Q. (Interrupting.) Did they pass any resolution?
A. (Continuing)—authorized the building of it.
Q. Did they pass any resolution, is my question?
A. I never received the resolution, but I am informed they did.
Q. Informed they passed a resolution on that subject?
A. Yes, sir.
Q. You haven't got it here?
A. I have not.
Q. Of course, I would object to any evidence as to what it was unless you had it. Where does the executive committee keep themselves?
A. In New York city.
424 Q. And that resolution would be on their books in New York city?
A. It would.
Q. Did you yourself have the design, purpose, or intent of building a railroad before you knew anything about the expense of it?
A. Before we knew about the expense?
Q. Yes; of the grade.
A. We always had an intention of building a line through the canyon.
Q. Independent of the expense of a grade?
A. It was reported the line was perfectly feasible.
Q. Just answer, please, General; independent of the question of expense of grade?
A. Independent of the question of expense.

Q. Of grade?
A. It was our intention to build through.
Q. Independent of what the grade per cent. was?
A. If it was found to be practicable after making the survey.
Q. If it was found to be practicable. You didn't wait for a survey to determine its practicability?
A. We had had an examination before.
Q. Just answer my question. Did you wait for a survey to determine its practicability?
A. We did not.
Q. Did not?
A. Done it on the examination made previously.
Q. You determined that in advance without any survey, did you?
A. Without any final survey.
Q. Or preliminary survey?
A. We had had an examination.
Q. Did you determine it before you had any preliminary survey, so far as——
A. Yes; so far as any location was made.
Q. Did this survey at any time inform you what the cost of the line was or cost of the line would be built from here to Park City?
A. What is the question? Did this survey——
Q. You were asked by Mr. Harkness what the purpose in
425 surveying a line was. Your first answer was to ascertain the cost of building the line.
A. Yes.
Q. Or the cost of line. That is the way you expressed it. Did it inform you of the cost of the line?
A. It did.
Q. In what manner did it inform you of it?
A. Through estimates of the engineer.
Q. Have you got them here?
A. I think the engineers have. I have not.
Q. You haven't got them yourself, but you think the engineers have?
A. I think they have.
Q. When were those estimates shown to you?
A. Mr. Yard's first estimate was, I think, made in March, before any location made.
Q. And shown to you at that time?
A. I think so or February or March. I am not sure which.
Q. An estimate was forwarded to you without any survey at all?
A. Before any survey at all was made.
Q. And then is that the last estimate you had?
A. What say?
Q. Is that the last estimate?
A. Oh, no.
Q. Did you have an estimate after the survey?
A. Yes, sir.
Q. When did you first see that?

A. The final estimate, I think, was made in October or November. I am not sure which.

Q. 1896?

A. 1896.

Q. By Mr. Yard; put in the form of a report to you, I suppose?

A. Yes.

Q. When did you first hear that Mr. Nunn contemplated building a dam in this river to make water power?

A. I will not be sure, but I think it was in the fall of 1895.

Q. Yes. Did you hear of it more than once prior to writ-
426 ing your letter of March 5th?

A. I think I had.

Q. Had you recently heard of it prior to March 5th?

A. I do not know that I had immediately prior. I had heard they were going to build a dam in Provo canyon.

Q. In this letter of March 5th I want to read you a line: "Since commencing this letter I have received your*d* of the 3rd inst." That is Yard's letter of March 3rd, I suppose? Have you got that letter?

A. I have not here.

Q. Not here. That was the one, I presume, that contained the discussion of American Fork?

A. I think it was.

Q. Where are those letters about American Fork?

A. What say?

Q. Where is that letter about American Fork—that letter of March 3rd?

A. That he wrote me?

Q. Yes.

A. I presume it is in my file at Denver.

Q. Prior to this time, prior to March, 1896, had your attention ever been called to the provision of our statute limiting the time for building a road to ten years?

A. I do not remember that it had.

Q. No one had ever spoken to you on the subject?

A. I do not remember that they had.

Mr. BROWN: That is all. If there should be anything in these unread letters I may want to recall him.

Mr. HARKNESS: Oh, yes.

427 Insert at page 373 the following:

The foregoing is the whole of the testimony of D. C. Dodge, and the letters referred to and made a part of his testimony are as follows, to wit, the following being a complete copy of the letters and all of them:

428 Rio Grande Western Railway Co., office of second vice-president and general manager.

DENVER, COLO., *Nov.* 1, 1895.

E. J. Yard, resident engineer, Salt Lake City, Utah.

DEAR SIR: Did you ever make an estimate of cost of line via

Provo canyon to Park City? If not, have you in your office, copy of report made by anybody else? If so, please send me copy.

Yours truly, D. C. DODGE.

Park City Line.

DENVER, COLO., *February* 27, 1896.

Mr. E. J. Yard.

DEAR SIR: Referring to your letter of December 4, 1895, in regard to cost of line to Park City:

Could we not save some five or six miles in distance by not using the U. C. grade between Heber and Park City? What do you estimate it would cost from Heber city on a shorter and independent line?

Yours truly, D. C. DODGE.

429 *Park City Extension.*

DENVER, COLO., *March* 5, 1896.

Mr. E. J. Yard.

DEAR SIR: Take the best locating engineer you have and put him at work in Provo canyon. We want the best line that can be found in the cañon at reasonable cost.

Since commencing this letter, I have received yours of the 3rd inst. I do not think we can wait until May 1st to commence this work. My idea is to locate through the Provo cañon first; afterwards extend the location to Park City. I agree with you that it may be better to start from American Fork instead of Provo, as I think your line down the Provo river will be pretty well up on the bench. If there is too much snow in the Provo cañon at present to do work satisfactorily, we will wait a week or two but cannot afford to wait as long as May 1st.

How much longer will the line be that we have to build to American Fork than to Provo, and how much will its horten the whole line, Park City to Salt Lake City?

Let me know by telegraph about how soon you think you can commence this location.

Yours truly, D. C. DODGE.

430 *Park City Extension.*

DENVER, COLO., *March* 30, 1896.

Mr. E. J. Yard.

DEAR SIR: All work done in Provo cañon will be paid for by Rio Grande Western Railway Company and charged to account of advance surveys. Keep everything in connection with the survey of that line separate from everything else.

Yours truly, D. C. DODGE.

Park City Extension.

DENVER, COLO., *May* 9, 1896.

Mr. E. J. Yard.

DEAR SIR: As soon as you complete location of line through Provo cañon, have map prepared for filing in Washington.

Yours truly,

D. C. DODGE.

431 *Park City Line.*

DENVER, COLO., *May* 15, 1896.

Mr. E. J. Yard.

DEAR SIR: I understand General Palmer will pass through Utah on the 20th and will return with Mr. Peabody and myself to Utah between the 26th and 28th of this month.

I would like, by the time we arrive there, all the information possible in regard to Park City line, especially the estimated cost through Provo cañon, say from Provo to Heber city. How far has your surveying party located?

How are you getting along with the Sevier extension. I suppose you will be able to take us to Richfield by the time we arrive?

Yours truly,

D. C. DODGE.

Telegram.

DENVER, 6, 13.

E. J. Y.:

I have this day written you to commence grading in Provo cañon, prefer to determine whether work by contract. Telegraph me what prices you can let contract for, subject to discontinuing on short notice, work to commence immediately.

D. C. DODGE.

432 DENVER, COLO., *June* 13, 1896.

Mr. E. J. Yard.

DEAR SIR: Put some men at work in Provo cañon above the point where the wagon-road bridge crosses the Provo river. Have this work done on the line as located, if you are satisfied it is all right. This work should be done on Government land or land not owned or controlled by Nunn or the Provo Reservoir Co. I am informed that he has an option on the Ferguson ranch. If true, we do not wish to do any work on that land. If he has not secured an option on it, I wish you would secure option for our right of way across it at once. Are there any other ranches through which we can secure right of way from the owners or occupants?

If you can arrange with Deal & Mendenhall to do this work at reasonable prices, we would much prefer to have them do it. Of course we cannot guarantee them any definite amount of work or any definite length of time. They must understand that the work is liable to be stopped entirely on few days' notice. Telegraph me what they will do.

Is map of our located line completed and sent off.

Yours truly,

D. C. DODGE.

433 *Park City Extension.*

DENVER, COLO., *June* 15, 1896.

Mr. E. J. Yard.

DEAR SIR: I wrote you Saturday and telegraphed you again this morning, in regard to work in Provo cañon. See Judge Harkness and he will explain to you what he has written General Palmer. As we are liable to be stopped in this work, I hardly think it wise to let any contract, but secure a good foreman and set forty or fifty men at work, with whatever teams are necessary. If we find they are not interfered with, we can in the near future let a contract to Deal & Co. or somebody else.

If there are any places in the cañon owned by private parties, I think we should secure right of way through them. Ask Judge Harkness in regard to this. As the map has gone forward, the sooner this work is commenced, the better. Telegraph me how soon you can commence this work.

Yours truly, D. C. DODGE.

Telegram.

DENVER, 15 *June*, '96.

E. J. Yard:

After talking with Vanglo (Robert Harkness) you may conclude it best not to furzechat (let contract) for darksome (grading) we want to do alveary (little as) possible to detriment (hold) our languorous (rights fully) until we see what the idelistic (other party) is damsel (going to) do.

D. C. D.

434 *Telegram.*

DENVER, — 16.

E. J. Yard:

Cipher message rec'd with the understanding that we can stay work at any time Deal can go to work at prices named in message as quickly as possible following Judge Harkness' instructions as to where work shall be done.

D. C. DODGE.

Park City Extension.

DENVER, COLO., *June* 16, 1896.

Mr. E. J. Yard.

DEAR SIR: Your cipher message in regard to work in Provo cañon is received, and I have replied as follows:

"Cipher message received. With the understanding that we can stop work at any time, Deal can go to work at prices named in message as quickly as possible, following Judge Harkness' instructions as to where work shall be done."

As we cannot tell how long we may be delayed, it is very important that the understanding with Deal be very plain, in regard to discontinuing the work at any time we may think advisable. Explain to Judge Harkness location of dam and our line very fully, and follow his instructions in regard to work.

General Palmer informs me he has approved and returned maps to Mr. Colton to be forwarded through local land office to Washington. I wish you would see that maps are not delayed by local land officials.

Yours truly, D. C. DODGE.

435 DENVER, COLO., *June 20th*, 1896.

E. D. Yard, Esq., ch'f eng., &c.

DEAR SIR: It is very important to know we have the best line that can be obtained through Provo cañon especially at up-er end where we have commenced work. While it is a good idea to save all the crossings of the river possible I do not think we can afford to sacrifice a good line in order to avoid river crossings.

I wish you would go over this matter with Baxter and perhaps try some other line.

Yours truly, D. C. DODGE.

DENVER, COLO., *June 20th*, 1896.

E. J. Yard, Esq., ch'f eng., &c.

DEAR SIR: I expect to go to Chicago next Tuesday. Will be gone about week or ten days. Soon after my return will go to Utah prepared to make trip to head of Daniels creek and perhaps a little further east.

Keep my office advised as to progress in Provo cañon also work on Sevier extension.

Will you have track completed to Elsinor by the end of the month? About what time will station building be completed.

Yours truly, D. C. DODGE.

436 SALT LAKE CITY, UTAH, *July* 14, 1896.

E. J. Yard, Esq., ch'f eng., &c.

D'R SIR: Judge Harkness thinks you better at once prepare another map of Provo Cañon line so as to have it ready for filing without delay if it should be necessary on account of new form of certificate.

He suggests calling it an *amended* map of line. Better see him in regard to it also in regard to amended certificate.

Yours truly, D. C. DODGE.

Telegram.

DENVER, 7, 20.

E. J. Yard:

Make contract in name of railway.

D. C. DODGE.

Telegram.

DENVER, 7, 26*th*.

To E. J. Yard, Springville:

I think it would be better to complete through reservoir above the dam so far as possible before doing any work below.

D. C. DODGE.

437 *Work in Provo Cañon.*

DENVER, COLO., *July* 27, 1896.

Mr. E. J. Yard.

DEAR SIR: Your message of 25th inst. received.

I think it would be better to move Deal's grading outfit up the cañon and complete so far as possible the grading through that portion of the cañon which the power company propose to take for their reservoir. I understand there will be no trouble in securing right of way except through the Ferguson ranch.

Yours truly, D. C. DODGE.

Telegram.

DENVER, 8, 2, 1896.

To E. J. Yard:

If I understand your m's'ge correctly namely thirty-two & one-half cents per yard cost about one thousand dollars you can close contract with them & have work started at once.

D. C. DODGE.

438 *Work in Provo Cañon.*

DENVER, COLO., *August* 8, 1896.

Mr. E. J. Yard.

DEAR SIR: Yours of the 6th inst. in regard to progress in Provo cañon, is received.

I note what you say about commencing work where our line crosses the proposed dam. I supposed we were working on the right of way we purchased from Murphy, but agree with you in seeing no reason why we should accept the power company's decision. I expect to meet Mr. Nunn some time during the coming week. If we are not able to settle our differences, or if we do not meet to discuss them, I will instruct Judge Harkness to commence suit. Everything should be got in shape so that there will be no delay when we decide what is best to be done.

Yours truly, D. C. DODGE.

Provo Cañon.

DENVER, COLO., *August* 24, 1896.

Mr. E. J. Yard.

DEAR SIR: Herewith I send you letter from Judge Harkness in regard to work in Provo cañon.

What objection is there to carrying out his suggestion? I can see there might be some objection to making any change in river bed.

Please return enclosed letter with your reply.

Yours truly, D. C. DODGE.

Encl.

439 *Provo Cañon.*

DENVER, COLO., *August* 31, 1896.

Mr. E. J. Yard.

DEAR SIR: Some days ago I sent you a suggestion made by Judge Harkness and asked if there was any objection to carrying it out. I have received no reply.

Enclosed I send you copy of letter I have this day written to Judge Harkness. Please go to his office and get whatever suggestion he has to make as to the best point for commencing work to bring our matters with the power company to an issue.

Yours truly, D. C. DODGE.

Encl.

Provo Cañon.

DENVER, COLO., *August* 31, 1896.

Hon. R. Harkness, western counsel, Salt Lake City, Utah:

DEAR SIR: Referring to your letter to General Palmer of August 27th I am requested by General Palmer to instruct you to commence suits as indicated in your letter. I have written Mr. Yard to call and see you and carry out your instructions in regard to the best point for doing work in order to bring up the issue between us and the power company. I think the sooner we can get it in the shape of a suit of some kind the better it will be for us. Anyway, there is no use of our going ahead spending money until the matter is legally settled.

Yours truly, ——— ———.

440 *Work in Provo Cañon.*

DENVER, COLO., *Sept.* 3, 1896.

Mr. E. J. Yard.

DEAR SIR: Yours of 1st inst. in reply to mine of the 25th ult., enclosing letter from Judge Harkness, is received, and I have sent same to Judge Harkness.

As I wrote you a few days since, the time has come when we desire to bring this case to an issue. Therefore, I see no objection to your commencing work as you suggest just below the dam. If that does not bring the question to an issue, I should try the channel change; but as the matter is left entirely with Judge Harkness, you will follow his directions in regard to it. The main point is to commence work somewhere that will bring it to an issue, if possible, at once.

I have sent copy of this letter to Judge Harkness, together with blue print and your letter.

Yours truly, D. C. DODGE.

441 *Sevier and Provo.*

DENVER, COLO., *Sept.* 14, 1896.

Mr. E. J. Yard.

DEAR SIR: Your letters of the 11th in regard to Sevier matters, and of the 12th in regard to Provo cañon, are received.

What does Judge Harkness advise in regard to doing further work in cañon, provided he gets an injunction? Of course, we do not wish to be to any further expense until we settle definitely what our rights are in the cañon.

In regard to work on Sevier extension,—I expect to leave here Wednesday and think now I will go direct to the end of the track, and would like to have you meet me at Thistle. Will let you know by telegraph.

Yours truly, D. C. DODGE.

DENVER, COLO., *Nov.* 10, 1896.

Mr. E. J. Yard.

DEAR SIR: I have not yet received your detailed statement of cost of line to Park City. How long before you will have it completed?

Please make up a statement showing cost of Sevier from Salina to Belknap, giving the items not included in your estimate separate. Also, the work south of Belknap separate.

Yours truly, D. C. DODGE.

442 *Provo and Sevier Extensions.*

DENVER, COLO., *Nov.* 27, 1896.

Mr. E. J. Yard.

DEAR SIR: Yours in regard to right of way through Ferguson's land in Provo cañon is received.

If power company allow their option to expire, we must get this right of way. See Colton and arrange with him for the payment.

I have just received your estimate of completion of Sevier railway from Belknap to Marysvale. I do not believe Colton will be able to pay for the work south of Belknap the first of January. I understood they were not to complete until February.

Yours truly, D. C. DODGE.

Right of Way, Provo.

DENVER, COLO., *Nov.* 30, 1896.

Mr. E. J. Yard.

DEAR SIR: I wish you would go to Judge Harkness and have him draw up an ordinance covering what we want at Provo for our Park City line. I would like this attended to as soon as possible.

Also, make up a statement of what we want Provo people to do in regard to right of way between Provo and mouth of cañon, and send me a copy of same.

Yours truly, D. C. DODGE.

P. S.—See what Welby wants also.

443 *Park City Extension.*

DENVER, COLO., *Dec.* 17, 1896.

Mr. E. J. Yard.

DEAR SIR: Yours of the 15th inst., together with blue print showing proposed entrance of Park City line into Provo, is received.

I think it would be well for Mr. Ricks to get options on the two pieces at the east end of the station grounds at Provo. Of course, we will not want this additional land if we do not get what we want from the city of Provo, but we can afford to pay a few dollars for an option until that matter is decided, which should be within the next six months.

Yours truly,

D. C. DODGE.

DENVER, COLO., *Dec.* 24, 1896.

Mr. E. J. Yard.

DEAR SIR: Yours of the 22nd inst., advising me of having furnished Judge Harkness with tracings for line through Provo cañon, to a point near Charleston, is received.

You better at once prepare map of the line from that point to Park City; also line up Daniel's creek; leaving off the title until we decide whether to file in name of Rio Grande railway or some other company, which I will know in a few days.

Yours truly,

D. C. DODGE.

444 DENVER, COLO., *Dec.* 31, 1896.

Mr. E. J. Yard.

DEAR SIR: Your telegram of 30th inst., in regard to purchase of three and a half acres of land at Provo, is received. I suppose we take the land from agent after he has received deed from owner.

I have also received your letter of 28th inst. in regard to the purchase of Ferguson's land by local parties. If you have not already done so, I wish you would advise Judge Harkness.

Yours truly,

D. C. DODGE.

DENVER, COLO., *February* 26, 1897.

Mr. E. J. Yard.

DEAR SIR: Your letter of the 24th inst. received, and have telegraphed you as follows:

"Your letter of twenty-fourth, enclosing blue print showing new line through Provo, received. Would much prefer line up H street, provided it does not cost too much. Would lay track immediately upon securing right to do so."

I think the proposed line up H street would be much better for a Park City connection, to say nothing about the additional local business. What will the right of way cost through the block where we turn off from main line? Of course we would want second track through to our depot.

How soon is this matter likely to come up?

Yours truly,

D. C. DODGE.

445 Plaintiffs also called in rebuttal a large number of witnesses for the purpose of showing the extra expense that would be caused by completing the railroad higher up the canyon, so as to get above the 85-foot dam at the points proposed by said defendants, said testimony tending to show that the extra expense would be from 40 to 50 thousand dollars per mile extra; also tending to show that the dam could be built by defendant to obtain the required power at a site further up the stream without raising it so high or high enough to interfere with the road-bed of said plaintiff.

Said rebuttal testimony also related to the relative cost and capacity of a dam at Hanging rock and one at Deer creek; to the area an 85-foot dam at Hanging rock would flow, and the depth and distance it would flow the cañon and highway; the area a 15-foot dam would flow; the amount of power a 15-foot dam would furnish; a description of the cañon above and below Hanging rock.

446 The foregoing is the whole or the substance of the whole of the testimony offered on each side, except so far as the statement shows omissions & abbreviations of evidence & testimony, & except as to exhibits. Either party may refer to maps in evidence & exhibits used on the trial in the dist. ct.

Plaintiff claims proper reading of telegram of Aug. 2nd, '96, is "Cash, about $1,000," instead of "Cost, about $1,000." The telegram as introduced to be shown & referred on hearing in higher court.

447 That after hearing the said testimony and arguments of counsel the court took the said case under advisement, and thereafter, to wit, on the — day of ——, filed his findings of fact and conclusions of law and signed a decree for said plaintiff; that within 10 days thereafter the said defendants, L. L. Nunn and the Telluride Transmission Company, filed and served a notice of intention to move for new trial, which is as follows:

448 Copy.

In the District Court for the Fourth Judicial District of Utah in and for the County of Utah.

THE RIO GRANDE WESTERN RAILWAY CO., Plaintiff,
vs.
L. L. NUNN, THE TELLURIDE POWER TRANSMISSION CO., and L. Holbrook, Defendants.
} Notice.

To the above-named plaintiff and to Bennett, Harkness, Howat, and Bradley, its attorneys:

Take notice that the defendants L. L. Nunn and The Telluride Power Transmission Company intend to move the court to vacate and set aside the order and decree rendered in the above-entitled cause and to grant a new trial of said cause on the following grounds, to wit:

Insufficiency of the evidence to justify the findings of fact, and that they are against law.

Errors of law occurring upon the trial and excepted to by the party making application.

That the findings of fact do not warrant the conclusions of law.

That the pleadings, findings of fact, and conclusions of law do not authorize the decree rendered.

Said motion will be founded upon a statement and bill of exceptions to be hereafter prepared and served upon you.

BROWN & HENDERSON,
Attorneys for the Above-named Defendants.

[Endorsed:] In the fourth dist. court, county of Utah. Notice of motion for a new trial. R. G. W. R'y Co., p'ff, *vs.* L. L. Nunn *et al.*, def'ts. Brown & Henderson, att'ys for def'ts.

449 But by agreement and stipulation of counsel and consent of the court the time for filing a bill of exceptions and statement on appeal and statement on motion for new trial was extended, and within the period of extension the accompanying bill of exceptions and statement on motions for new trial & on appeal was filed and served upon counsel for plaintiff.

The foregoing has been examined & is agreed upon, in the light of the subsequent assignments of error, to be a correct bill of ex. & statement.

May 28th, 1897.

BENNETT, H., H. & B.,
THURMAN & WEDGWOOD,
Att'ys for Pl'ff.

450 Now come the said defendants, L. L. Nunn and The Telluride Power Transmission Company, and separately and severally allege the following assignment of errors, and, complaining of the proceedings in said trial, allege:

1. That the court erred in admitting in evidence the articles of incorporation of the Denver & Rio Grande Western Railway Company, Plaintiff's Exhibit A, and in overruling the objection of defendants to the receipt in evidence of the same.

2. The court erred in admitting in evidence and in overruling the objection of defendants thereto of the articles of incorporation of the Denver and State Line Railroad Company (Transcript, page 4).

3. The court erred in admitting in evidence the articles of association of said plaintiff herein of the Rio Grande Railroad Company, the same being Exhibit C, and in overruling the objections of defendants thereto (Trans., page 5).

4. The court erred in admitting in evidence the deed from A. L. Murphy and wife to the Rio Grande Western R'y Co. and in overruling the objection of defendants thereto, the same being Exhibit E (Trans., p. 7 & 8).

5. The court erred in permitting the witness Yard to answer the question whether the premises described in the complaint were

necessary for the construction of a railroad and in overruling the objection of defendants thereto (Trans., p. 27).

451 6. The court erred in overruling the motion of defendants for a nonsuit (Trans., p. 103).

7. The court erred in ruling that the plaintiff was entitled to relief upon the evidence introduced in chief, and in holding that on that statement he had a cause of action against the defendants.

8. The court erred in ruling that the plaintiff, under its charter introduced in evidence, was authorized in law to build a railroad in Provo canyon, and in holding that the franchise granted to plaintiff had not expired by limitation.

9. The court erred in holding and ruling, against defendants' objection, that plaintiff acquired a right to bring suit for a right of way prior to filing a map and profile in the land office of the United States and prior to its approval by the Secretary of the Interior (Trans., p. 103).

10. The court erred in ruling that the plaintiff acquired a right to enter upon the lands of the United States and could bring suit for a right of way prior to the filing with the register of the land office of a map or profile of its line of roads containing and including the particular section of land for which suit is brought (Trans., p. 103).

11. The court erred in overruling the objection of defendants to the question to witness Dodge for the plaintiff, as follows: "Q. Since the organization of the Rio Grande Western Railroad Company what construction work have you been engaged in?" and in permitting Dodge to answer the same (Trans., p. 357).

452 12. The court erred in permitting witness Dodge to answer the question as to the widening of the gauge of the line from Ogden to Grand Junction and to the question: "Was that under the new organization?" and permitting him to say that it was, and in overruling defendants' objection thereto (Trans., p. 358).

13. The court erred in permitting witness Dodge to answer the question as to the same work: "Q. I suppose that work of that kind has to be done largely on credit?" and in overruling objections of defendants thereto and in permitting witness to answer: "It has" (Trans., p. 358).

14. The court erred in overruling the objection of counsel for defendants to the question put to witness Dodge: "Q. What other lines have you built since that?" and in permitting him to answer: "We have built lines to the Tintic mining district and Thistle nearly to Marysvale, and the line to Tintic was about 50 miles. The Marysvale is 127 to 130 miles" (Trans., 358–'9).

15. The court erred in overruling the objection of counsel for defendant- to the question propounded to witness Dodge: "What examination have you made or caused to be made in Provo canyon?" and in permitting witness to answer the same (Trans., 359–360).

16. The court erred in permitting the witness Dodge to testify as to what intent the company had or purpose in building up Provo canyon (Trans., pp. 359-361).

453 17. The court erred in overruling the objections of defendants' counsel to the question propounded to witness Dodge, "Answer if you personally, Mr. Dodge, have had anything to do with this matter of establishing or arranging for the establishing of any line there?" and in permitting said witness to answer, "It was always intended by the company to go through that canyon," and in permitting said answer of said witness to stand as testimony in said case against the objection of defendants (Tran., 360–'1).

18. The court erred in admitting in evidence the proof of the letter and the letter of November 1st, 1895.

19. The court erred in admitting in evidence proof of and the letter of March 6th, 1896.

20. The court erred in admitting in evidence proofs of and the letter of March 30th, 1896.

21. The court erred in admitting in evidence proofs of and the letter of June 15th, 1896.

22. The court erred, as a matter of law, in finding the fourth finding of fact, said finding not being in issue and being immaterial.

23. The court erred, as a matter of law, in finding, as a part of the ninth finding, that "the change of alignment from the north to the south side of the river was made in good faith."

24. The court erred in presenting, as a finding of fact, that part of the nineteenth finding in which it is found that "And it is shown that the Telluride Power Transmission Company, with three dams, only generate 4,000-horse power at Telluride."

25. The court erred, as a matter of law, in presenting that part of the 20th finding which says "A dam raising the water 85
454 feet at the Hanging rock would flow the county road to a depth ranging from 70 feet to one foot, and the expense of carrying said road above such reservoir upon the side of the mountain would be great, amounting to many thousand dollars," said issue not being presented, and said finding being erroneous as a matter of law.

26. The court erred, as a matter of law, in presenting the finding 21, as a matter being entirely immaterial and not true; in finding that the controversy involves the whole of said canyon, and is contrary to the issues in this case.

27. The court erred, as a matter of law, in finding the 27th finding, said question involved therein not belonging to the issues and the finding itself being unreasonable and unnecessary and not in accordance with customs and conditions of the country, hampering and threatening all public interests, particularly those of this court.

28. The court erred in the 1st conclusion of law.

29. The court erred in the 2nd conclusion of law.

30. The court erred in the 3rd conclusion of law.

31. The court erred in the 4th conclusion of law.

32. The court erred in rendering a decree for plaintiff and against defendants on findings and conclusions of law and pleading and evidence in this case.

33. The court erred in its 26th finding of fact, as it is in the nature

of an opinion and is not true in law, and the court erred in that conclusion.

455 *Specifications of Particulars wherein the Evidence is Insufficient to Support the Findings of Fact.*

1. The evidence is insufficient to support the 4th finding of fact, wherein it is found "that the county road of Provo canyon is the only means and route of travel from Provo and the Utah valley eastward through and over the Wasatch range of mountains," for the reason that no evidence was introduced as to the methods of travel and no issue was formed upon it, and the said finding is absolutely without any evidence whatever.

2. There is no evidence sufficient to support the first part of the 6th finding, to wit, "This location and survey was made in good faith and with the intent to construct a line of the survey and to appropriate for the use of the railroad a right of way over the public lands of the United States," for the reason that there was no sufficient evidence tending to show that the plaintiff company intended to build a railroad up Provo canyon, but simply to construct a line of survey.

3. The evidence is insufficient to support the latter part of the 14th finding of fact, in which it is found that "the defendants as early as May, 1895, abandoned any intention of diverting or appropriating any water at or near said point or under said notice," referring to the point near Bridal Veil falls, for the reason that there is no evidence whatever to justify the conclusion that defendants ever abandoned any intention of appropriating water under said notice, the question in controversy being, what would be meant by "near said point"?

456 4. There is no evidence to authorize the first part of the 19th finding, which is as follows, "There is no evidence of any requirement or market for 10,000-horse power," for the reason that the defendants showed by several witnesses, contradicted by none, that there was ample market within the range of electric transmission for a great deal more than 10,000-horse power, and that there would be market power at rates at which said defendants could profitably produce it for Salt Lake City, in Uintah mining district, in Mercur, Tintic, and in Provo and market in this place for horse-power vastly exceeding 10,000-horse power.

5. There is no evidence to justify the latter part of the 20th finding, "At the place called Deer creek, five miles above Hanging rock, a dam can be constructed for storage purposes at an expense of one-fourth of that required for an 85-foot *foot* dam at Hanging rock and with equal storage capacity, and such a dam would fill every necessary requirement and would interfere with the uses of the canyon for other purposes in a much less degree than an 85-foot dam at Hanging rock," for the reason that there was no evidence as to what such a dam could be constructed for at Deer creek, what the right of storage could be procured for, how much it would interfere

with the use of the canyon, and the issue of building a dam at Deer creek was not entered upon nor within the pleadings.

6. There is no evidence to justify the finding that the defendants never intended to erect a dam 60 feet high at Middle rock, 23rd finding, "or in pursuance of the notice dated March 27th, 1896, and have done no work indicating such an intention, and the notice was not posted at the place intended by defendant Nunn or in
457 accordance with his intention, and the survey commenced under said notice was abandoned by the direction of defendant Nunn," for the reason that the notice of March 27th was posted and within a few feet of Hanging rock, when to all intents and purposes — was at the same *same* place, that the line of the flume was precisely at the height and in the manner indicated by that notice and was built along the line indicated in that notice, and for the further reason that the defendant L. L. Nunn directed that said notice should not be taken down, but should stand as the evidence of the intention to build, the said place being substantially and identically that of Hanging rock, and there is no evidence whatever that the survey commenced under said notice was abandoned by the direction of said Nunn.

7. The evidence is insufficient to justify the 24th finding, "The defendants have never had a present intention or given any public printed or written notice of an intention to erect a dam to raise the waters at Hanging rock 85 feet," for the reason that the said finding is contradicted by other findings that the stake placed there indicated an intention to raise the water to 85 feet; that the contour line of the reservoir found in another finding to have been built showed an intention to raise the water to the level of 85 feet; that Nunn testified that that was his intention, and the defendants showed that they had expended over $70,000 in fulfilling and carrying out that purpose.

8. There is no evidence to justify that part of the finding which says "The defendants have never done or pursued with diligence any work to show or give notice of such an intention," said part of said finding being contrary to the evidence, it appearing that said defendants have expended $70,000 — in prosecuting said work than the plaintiffs have in building their survey line of road.

458 9. That part of the 24th finding which says "that defendants, looking to the future success of the enterprise and the future demands for more power and a dam at Hanging rock, in the meantime performing such acts as would give them full control of the water and power of the canyon, awaiting the wants and contingencies of the future;" there is no evidence to show that the defendants intended to await the wants and contingencies of the future.

10. The finding "that the defendants have never taken or had possession of the land in controversy or any land in said canyon except the land on which their flume was erected, and perhaps a constructive possession or claim of possession to so much of a dam 15 feet high at Middle rock would flow," is entirely unfounded in fact, said defendants owning large tracts of land and expending a

great deal of money in getting rights of way, and said defendants had taken actual possession of this particular land in controversy, was inclosing the same within the area of their destined reservoir, and staked out for that purpose.

11. There is no evidence to justify the 26th finding of fact as follows, "The plaintiff, by the location and survey of its railroad and the commencement of work, took and had possession and right of possession of the land in controversy, and all the possession and right of possession of its surveyed line that the nature of the property and the uses to which it was to be applied permitted," there being no evidence to justify said finding, or that they took any possession of said surveyed line.

459 12. The 27th finding is without evidence to justify the same. There is nothing to show that a dam 85 feet high would be unreasonable or unnecessary or not in accordance with the customs and conditions of the country. There was no evidence introduced to justify any conclusion that an 85-foot dam was not in accordance with the customs and conditions of the country. There is nothing to justify the finding that an 85-foot dam would hamper or thwart other interests or enterprises, either of a public or private character, and there was no evidence before the court as to the relative rights and interests of the parties and that affects any use of said canyon. The finding on that point is a essay on political economy, without evidence to justify it, without reason to sustain it in the teeth of the rights of the parties in this case, and injurious to the welfare of this State.

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Att'ys for Def'ts Nunn & The Telluride Power Transmission Co.

460 And because the said exceptions and statement does not appear of record, the court has, by consent of counsel on both sides, stated the aforesaid statement on motion for new trial as such and as a statement on appeal and as a bill of exceptions.

In witness whereof said court has affixed his signature this 28th day of May, 1897.

WARREN N. DUSENBERRY,
District Judge.

461 [Endorsed:] Filed at Provo City, Utah, Jun- 6, 1897. Geo. Havercamp, clerk.

462 *Agreement Forming and Incorporating the Rio Grande Western Railway Company.*

This agreement, made the sixteenth day of May, A. D. 1889, between David C. Dodge, president of the State Line and Denver Railway Company, as such president, and David C. Dodge, Theron Geddes, George B. Dodge, John F. Evans, and John S. Kinkead, who compose the board of directors of said company, as such directors and as such board of directors, and the said The State Line and

Denver Railway Company, by its president and directors aforesaid, all as parties of the first part hereto, and who are herein called "party of the first part," and William J. Palmer, president of *the Denver and Rio Grande Western Railway Company*, as such president, and William J. Palmer, George A. Lowe, George Goss, William F. Colton and Robert Harkness who compose the board of directors of said last-named company, as such directors, and as such board of directors, and the said The Denver and Rio Grande Western Railway Company, by its president and directors aforesaid, all as parties of the second part hereto, and who are herein called "party of the second part,"

Witnesseth:

That the said, The State Line and Denver Railway Company is a railroad corporation, organized under and in pursuance of the laws of the State of Colorado, and authorized to acquire the right of way for, and to build, construct and operate, all the lines and routes of railroad hereinafter specified which are within the State of Colorado, and to unite or agree with any other railroad company or companies for joint construction and trackage, or joint trackage on and over said lines or any part thereof, and is proceeding in such construction; that said company has an authorized common capital stock of one million dollars, divided into ten thousand shares of the denomination of one hundred dollars per share, of which one hundred shares have been subscribed; and of seven million, five hundred thousand dollars preferred stock, in shares of like denomination, which are entitled to dividends up to five per cent. per annum, non-cumulative, before the common capital stock shall be entitled to any dividends. After the payment in any one year of five per cent. on both the preferred and common stock, both classes of stock to share on an equal footing in the distribution of any further dividends for that year.

That the said The Denver and Rio Grande Western Railway Company, is a railroad corporation organized and existing under the laws of the Territory of Utah, and authorized to acquire the right of way for, and to construct and operate all the lines of railway hereinafter specified, which are situated in said Territory of Utah; that the authorized total of the capital stock of said company is the sum of forty-eight million dollars, divided into four hundred and eighty thousand shares of the denomination of one hundred dollars per share, of which seventy-five thousand shares of
463 the par value of seven million, five hundred thousand dollars have been subscribed, paid for and issued, and said company has acquired, fully constructed, and has in operation three hundred and seventy-three miles of narrow-gauge railway in Utah, (on and over some of the lines in Utah heretofore mentioned and hereinafter described) with telegraph lines, rolling stock, appurtenances and fixtures, and has also done work and expended moneys in the process of constructing other portions of said lines; the said fully constructed and operated lines consisting of a line commencing in the city of Ogden, Weber county, and running southward to Salt Lake City, in Salt Lake county, thence southward to Provo, in Utah

county, thence southeasterly in the counties of Utah, Wasatch and Emery, to the Colorado State line, a distance of three hundred and ten miles, more or less; a branch from near Sandy, in Salt Lake county, westerly to Bingham in the same county, a distance of twenty miles, more or less; a branch from the same point easterly to Alta, in the same county, a distance of twenty miles, more or less; a branch from Pleasant Valley Junction, in Utah county, southwesterly to coal mines in Sanpete county, a distance of twenty-three miles, more or less, and the moneys actually paid in and expended in such construction, exceed the sum of one thousand dollars per mile for and in respect to each mile of all its authorized lines of railway.

That said last-named company has issued and there is outstanding and unpaid six thousand nine hundred first mortgage thirty-year gold bonds for the sum of one thousand dollars each, maturing September 1st, 1911, bearing interest at six per cent. per annum, payable semi-annually, and also coupon certificates not exceeding one million, three hundred and forty-five thousand, five hundred dollars for unpaid interest on its said first-mortgage bonds, issued under a certain arrangement made in 1885 for the extension of payment of part of the interest of said first-mortgage bonds, and commonly known as the "funding plan," the tenor and effect of which "funding plan" is well known to both parties hereto.

That the lines and proposed lines of railroad of the respective parties are not parallel or competitive, but continuous and connective; that it is considered desirable by both parties hereto that the lines of railway of the party of the first part shall be constructed as standard-gauge roads; and that, in view of connection for through routes, not only as between the lines of the parties hereto, but also as to connections with other railroads, that the constructed lines of the party of the second part shall be changed to standard gauge; also that the first mortgage bonds and coupon certificates aforesaid shall be taken up and converted into four per cent. fifty-year gold bonds, secured by a first-trust mortgage, and that holders of said bonds and coupons shall be compensated for the exchange in preferred stock.

And whereas the said The Denver and Rio Grande Western Railway Company, and a committee of its bondholders, and such holders of said bonds as then became or thereafter should become parties thereto, entered into a mutual agreement dated April 1st, 1889, providing, among other things, for converting the securities, changing the gauge, and improving and extending the lines of railway of said last-named company, and this agreement is made with reference to the terms and conditions thereof and in the expectation that the consolidated company hereby formed shall and will,
464 and the parties hereto agree said consolidated company shall and will approve, adopt, and abide by said agreement in all its substantial terms, so far as the same shall be within the lawful powers of said consolidated company. That the party of the first part has no corporate debts and all the benefits to be secured by

the organizations of the respective parties can be best secured by means of this consolidation.

Now, therefore, the said party of the first part and the said party of the second part, under and in accordance with the laws of the State of Colorado and the laws of the Territory of Utah, hereby consolidate said railway companies and consolidate and unite all the franchises, properties, effects and capital stock, debts, assets and concerns legal and equitable of both said parties, into one corporation, and hereby form and organize said corporation, on the terms and conditions following, to wit:

I.

The name of the corporation, hereby formed, is: "The Rio Grande Western Railway Company."

II.

The government of the corporation and the management of its affairs shall be vested in a board of directors, who shall elect a president, a vice-president, a secretary and a treasurer.

The names and numbers of the directors and other officers are:

A board of directors to consist of seven directors, a president, vice-president, secretary, and treasurer. The board of directors may also appoint or authorize the appointment of an auditor, and one or more assistant auditors, secretaries and treasurers, and create such other executive, operative, and financial agencies as the business of the company may require.

III.

The first directors who shall constitute the board of directors until after the first annual meeting and the election and qualifications of successors shall be:

Wm. J. Palmer of Colorado Springs, Colorado.
David C. Dodge of Denver, Colorado.
Robert Harkness of Salt Lake City, Utah.
George Goss of Salt Lake City, Utah.
Wm. F. Colton of Salt Lake City, Utah.
George A. Lowe of Salt Lake City, Utah.
Wm. A. Bradley of Salt Lake City, Utah.

And Wm. J. Palmer, of Colorado Springs, shall be the first president; David C. Dodge, of Denver, the first vice-president; Wm. F. Colton, of Salt Lake City, first secretary, and Chas. W. Drake, of New York, the first treasurer, and they shall hold their offices respectively until after the first annual meeting and the election and qualification of successors.

IV.

The common capital stock of this corporation shall be seven million, five hundred thousand dollars, and the number of shares thereof seventy-five thousand, each share of the denomination of one hundred dollars. There shall be also seven million, five hun-

dred thousand dollars of preferred stock, of which the number
465 of shares shall be seventy-five thousand, each of the denomination of one hundred dollars, which said preferred shares shall be entitled to dividends up to five per cent. per annum, noncumulative, before the common capital stock shall be entitled to any dividends. After the payment in any one year of five per cent. on both the preferred and common stock, both classes of stock to share on an equal footing in the distribution of any further dividends for that year.

V.

The principal place of business of the company in the Territory of Utah shall be in the city of Salt Lake, in the county of Salt Lake, and its principal place of business in the State of Colorado shall be in the city of Denver, in the county of Arapahoe. The company may also establish and have financial, registry, transfer and exchange offices at any place and places in the United States and foreign countries.

VI.

The time of commencement of the corporation shall be the 20th day of May, A. D. 1889, or as soon thereafter as this agreement is adopted as herein provided, and the period of its continuance and existence shall be fifty years.

VII.

The names and places of residences of the parties forming the corporation are:

The State Line and Denver Railway Company, a railroad corporation of the State of Colorado, with its principal place of business in the city of Denver, in the county of Arapahoe, in said State, and the Denver & Rio Grande Western Railway Company, a railroad corporation of the Territory of Utah, with its principal place of business in the city of Salt Lake, in the county of Salt Lake, in said Territory.

VIII.

The places from and to which the corporation proposes and intends to own, hold and operate, and to acquire, construct, hold own and operate lines of railroad, telegraph and express routes, and transportation agencies, incident thereto, and the counties into and through which they pass and are intended to pass, and their length as near as may be are:

In the State of Colorado.

A line of railroad commencing at a point in Mesa county on the west line of the State of Colorado, at a point between parallels thirty-nine degrees and thirty-nine degrees thirty minutes north latitude, where it will connect with the railway of the Denver and Rio Grande Western Railway Company, thence running in a general easterly direction up the valley of the Grand river to Glenwood springs in Garfield county, from thence in a general easterly direc-

tion through the counties of Garfield, Eagle, and such other couties as shall be found most desirable and by the most practicable route to the city of Denver in the county of Arapahoe, with branch lines, from such point or points on said main line as may be found most desirable, by the most practicable route or routes, to Aspen in Pitkin county, to Leadville in Lake county, and to Colorado Springs in El Paso county.

466 Also a branch line from such point on said main line, or on said Aspen branch, in the county of Mesa, Garfield, or Pitkin, as may be found most desirable, by way of Gunnison in Gunnison county, Cochetopa pass, and Saguache, to Pueblo in Pueblo county, by the particular route that may be determined by final survey to be most practicable; also to agree with any other railway company or companies for trackage over its or their lines, or in connection with any other company or companies to agree for the joint construction, joint ownership or joint trackage, or to make any or all of such joint arrangements with reference to said lines of railway or any of them.

In the Territory of Utah, as specified in the charter of the party of the second part.

First. From Ogden, in Weber county, to a point near the intersection of the western and southern boundary lines of Utah, in Washington county, passing into or through the counties of Weber, Davis, Salt Lake, Utah, Juab, Sanpete, Sevier, Millard, Beaver, Piute, Iron, Kane and Washington, all in the Territory of Utah, a distance of three hundred and twenty (320) miles, as near as may be, with a branch from a point of intersection in Beaver county, thence in a southwesterly direction to the western boundary line of Utah, at or near its intersection with the seventh standard parallel south, passing into or through the counties of Beaver and Iron, all in the Territory of Utah, a distance of sixty (60) miles, as near as may be.

Second. From the mouth of Clear creek, near Joseph city, in Sevier county, to the southern boundary line of Utah, in Kane county, at a point where the Arizona Northern Railway of Arizona Territory shall intersect said boundary line, passing into or through the counties of Sevier, Piute, Iron and Kane, all in the Territory of Utah, a distance of one hundred and forty miles, as near as may be.

Third. From the mouth of Clear creek, in Sevier valley, in Sevier county, to the city of St. George in Washington county, passing into or through the counties of Sevier, Piute, Beaver, Iron, Kane and Washington, all in the Territory of Utah, a distance of one hundred and thirty miles, as near as may be.

Fourth. From a point at or near Iron Springs, in Iron county, to a point on the western boundary line of Utah, near the seventh standard parallel south in Iron county, passing into or through Iron county, a distance of fifty-five (55) miles as near as may be.

Fifth. From a point at or near Cove Creek Fort in Millard county, to a point on the western boundary line of Utah, at or near

its intersection with the thirty-ninth parallel north latitude; passing into or through Millard county, with branches as follows: 1. A branch running to a point on the western boundary line of Utah, at or near the north end of Needle range of mountains, passing into or through Millard county, in Utah Territory. 2. A branch from the most convenient point on said line to a point at or near Frisco, in San Francisco mining district, passing into or through Millard and Beaver counties, in Utah Territory. The said line and two branches last herein described, being one hundred and forty-five miles in length as near as may be.

Sixth. From Salt Lake City to a point on the western boundary line of Utah at or near the first standard parallel south, passing into or through Salt Lake and Tooele counties, all in Utah Territory, a distance of one hundred and forty miles, as near as may be.

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Seventh. From a point at or near Lehi in Utah county, to a point on the western boundary line of Utah, between the first and second standard parallels south, passing into or through the counties of Salt Lake, Utah, Tooele and Juab, all in Utah Territory, a distance of one hundred and fifty (150) miles as near as may be.

Eighth. From a point at or near Springville in Utah county to a point on the western boundary line of Utah, between the first and second parallels south, passing into or through the counties of Utah, Juab and Tooele, all in the Territory of Utah, a distance of one hundred and fifty (150) miles as near as may be.

Ninth. From a point at or near Salina, in Sevier county, to a point on the western boundary line of Utah, at or near the thirty-ninth parallel of north latitude, passing into or through the counties of Sevier, Sanpete, Millard, all in Utah Territory, a distance of two hundred (200) miles as near as may be.

Tenth. From a point at or near Deseret, in Millard county, to a point on the western boundary line of Utah, between the second and third standard parallels south, passing into or through the counties of Millard and Juab, all in Utah Territory, a distance of eighty (80) miles as near as may be.

Eleventh. From a point at or near Salina, in Sevier county, to a point on the Utah and Pleasant Valley railway, at or near the mouth of Thistle valley, in Utah county, passing into or through the counties of Sevier, Sanpete and Utah, all in Utah Territory, a distance of eighty miles as near as may be.

"Twelfth. From the city of Provo, in Utah county, to a point on the eastern boundary line of Utah, where the same is crossed by the valley of the White river in Uintah county, passing into or through the counties of Utah, Wasatch and Uintah, with the following branches, to wit:" 1. A branch from a point at or near the mouth of White River, in Uintah county, to a point on the eastern boundary line of Utah, where the same is crossed by the valley of Green river, passing into or through Uintah county. 2. A branch from a point at or near Soldiers' pass, in Wasatch county, to a point on the Sevier Valley railway line at or near the mouth of Huntington creek, in Emery county, passing into or through the counties of

Wasatch and Emery, in the Territory of Utah. 3. A branch from a point at or near the mouth of White river, in Uintah county, to a point at or near Kimball's station in Summit county, passing into or through the counties of Summit, Wasatch and Uintah, all in Utah Territory. 4. A branch from the mouth of White river in Uintah county to the mouth of Grand river in Piute county, passing into or through Uintah, Piute and San Juan counties, all in the Territory of Utah. The length of said last-named line and four branches being six hundred and twenty (620) miles as near as may be.

Thirteenth. From a point at or near the city of Ogden, in Weber county, Utah, to a point at or near Salina, in Sevier county, Utah, and thence in a general southwardly direction to the north boundary line of the Territory of Arizona, and from at or near Salina aforesaid, eastwardly to the westerly boundary of the State of Colorado; the northerly terminus of said railroad being at or near said
468 city of Ogden; the southern terminus being the northern boundary line of Arizona, and the eastern terminus being the western boundary of the State of Colorado. The general route of said railroad between said termini will be as follows: Commencing at a point at or near said city of Ogden and running thence southward down the Great Salt Lake valley, on the east side of said lake to Salt Lake City; thence southward in the valley of the Jordan river to Utah Lake; thence along the westerly side of said lake and southward to a point at or near Nephi, in Juab county; thence by way of Salt Creek canyon and Sanpete valley, or by the Juab valley, to the valley of the Sevier river, and up said valley to a point at or near Salina, Sevier county; thence southward up said valley to its head, thence over the Sevier pass or any other pass leading from the headwaters of the Sevier river to the drainage of the Rio Colorado, which on detailed survey may be found most practicable; thence following the Colorado drainage in a general southwardly direction by the route found most practicable on detailed survey to the north boundary line of the Territory of Arizona; also from a point at or near Salina in the county of Sevier, eastward through the Salina pass into Castle valley; thence across Castle valley by whatever route may be found most practicable on detailed survey, to the crossing of Green river near parallel thirty-nine (39); thence in a general easterly course to Grand river and up the valley of the Grand river to the western boundary of the State of Colorado, the entire length of said route and contemplated railroad being six hundred miles as near as the same can be estimated.

Fourteenth. From a point at or near the city of Salt Lake, in the county of Salt Lake, and Territory of Utah, by the route most practicable, to Park City, in the county of Summit, and Territory of Utah, and with a branch from Park City aforesaid or from some point on the line between Salt Lake City and Park City as may be found most practicable, to Coalville, in the county of Summit, and Territory of Utah. The general route of said railroad between said termini will be as follows: Leaving the Salt Lake valley at or near Salt Lake city, Utah Territory, and passing eastward over the

mountains by the way of Parley's or Emigration canyon, or by the way of both canyons, as may be found best, and thence eastward across Parley's park to Park City, aforesaid; the route to Coalville will be from Park City or some point on the aforesaid route eastward of the summit of the mountains, and from thence to, or near to Coalville, by the route found most practicable by actual survey. The entire length of said route and contemplated railway, inclusive of the branch to Coalville, is about fifty-two (52) miles, as near as the same can be estimated.

Fifteenth. From a point at or near Provo, in Utah county, to a point at or near the mouth of Duchesne Fork of the Uintah river, in Wasatch county, passing into or through the counties of Utah, Wasatch and Summit, a distance, as near as may be, of one hundred miles.

Sixteenth. A branch line of railway beginning at a point on the line of route of the company's railway between Salt Lake City and Draperville, and about eleven miles southerly from Salt Lake City, thence running westerly to and through Bingham canyon to a point at or near the Jordan mine, in the West Mountain mining district, a distance of about twenty miles, all in Salt Lake county, Territory of Utah.

Seventeenth. Also a branch line of railway beginning at a point on the line of route of the company's railway between Salt Lake City and Draperville, and about twelve miles southerly from
469 Salt Lake City, thence running easterly, to and through Little Cottonwood canyon, to a point at or near Alta City, a distance of about twenty miles, with a branch from a point at or near the mouth of Little Cottonwood canyon, to and through Big Cottonwood canyon, a further distance of about fifteen miles, all in Salt Lake county, Territory of Utah.

Eighteenth. Also a line of railway beginning at or near Dead Horse crossing of Price river, thence running in a southeasterly direction through, or near the valley of Price river by the most practicable route, to a connection within ten miles of Green river and near a place known as Blake city, with the line of route of the company's railway from Salina easterly a distance of eighty miles, more or less, being wholly within the limits of Emery county, Utah Territory.

Nineteenth. A branch of railway from a point in Utah county on the line of route of said company's railway at Pleasant Valley junction, near the junction of Fish creek and Price river, running thence southwesterly through Fish Creek canyon to Pleasant valley, thence southerly through Pleasant valley to the Winter Quarters coal mine, a distance of about eighteen (18) miles, passing through a portion of Utah, Emery and Sanpete counties, Territory of Utah, with such branches or spurs as may be necessary to reach other coal mines in and near Pleasant valley.

The entire length of said several lines of railroad and the branches thereof being three thousand one hundred (3,100) miles, as near as the same can be estimated.

IX.

The actual contemplated cost of constructing said lines of railroad and telegraph in Colorado and Utah, together with the right of way, the mode of power and the motive power, and every other appurtenance and thing for the completion and running of the roads, as nearly as can be estimated and as is estimated by competent engineers, is the sum of ninety millions dollars, including the cost of the lines already constructed and in operation.

X.

The manner of converting the capital stock of the respective companies, parties hereto, shall be as follows:

The common capital stock of the party of the first part shall be cancelled and retired, upon the consent of the subscribers therefor, either by vote in adopting this agreement or otherwise. The capital stock of the party of the second part, which is issued, to wit: seventy-five thousand shares, shall be converted and exchanged into the capital stock of the said "The Rio Grande Western Railway Company," by equal exchange, share for share. The authorized unissued capital stock of the party of the second part shall be deemed cancelled and retired. The amount of preferred capital stock which the party of the first part is authorized to issue and which is not subscribed for or issued, to wit: seven million, five hundred thousand dollars, shall be issued by the said The Rio Grande Western Railway Company, and by it used and held for the purposes and in accordance with the terms of the aforesaid written contract, dated April 1st, 1889, made by the Denver and Rio Grande Western Railway Company, a committee of its bondholders, and other of its bondholders, and the terms and conditions of said last-named agreement are hereby adopted, ratified and approved.

XI.

There shall be an annual meeting of the stockholders of the Rio Grande Western Railway Company, held in the city of Salt Lake, in the Territory of Utah, on the first Monday of July, 1889, and annually thereafter, at which a board of directors for the ensuing year shall be elected, and the elected board, at its first meeting after election, shall elect a president, vice-president, secretary and treasurer, and the term of office of directors and officers shall be one year, and until successors are elected and qualified. At stockholders' meetings the owners of the stock shall be entitled to one vote for each share of either common or preferred stock, and the time and place of holding annual meetings may be changed by the stockholders at any annual meeting. Vacancies in the board of directors or in any office of the company may be filled by the board.

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The board of directors may, from time to time, enact by-laws, and repeal, change, alter and amend the same, prescribing the notice for annual meetings, the manner of calling and the notice for special meetings of stockholders, appointing stated meetings of

the board, and providing for special meetings thereof, prescribing rules and regulations for conducting the business of the corporation and managing its affairs. The board of directors may also appoint an executive committee to have the powers of the board in ordinary business affairs, between meetings of the board.

The board of directors may hold meetings and exercise all its powers at any place or places in the United States, and as well out of as within the State of Colorado and Territory of Utah, and it has power to make and secure the payment of loans, issue bonds or other securities to raise money, prescribe the rate of interest on loans and the times and terms of payment, to provide for securing and to secure the payment of loans made by, and the debts, liabilities, and obligations of the company, by mortgage or trust deed of the properties of the company, or by other means.

XII.

This agreement shall take effect and become operative upon its adoption or ratification by the board of directors and stockholders of each of the parties as provided by law.

In witness whereof, this agreement is executed by the respective parties hereto this sixteenth day of May, A. D. one thousand, eight hundred and eighty-nine.

THE STATE LINE AND DENVER RAILWAY COMPANY.

—— ——, *President.*
—— ——,
—— ——,
—— ——,
—— ——,
—— ——,

The Directors and the Board of Directors of the State Line and Denver Railway Company.

Attest: —— ——,
Secretary of the State Line and Denver Railway Company.

THE DENVER & RIO GRANDE WESTERN RAILWAY COMPANY.

—— ——, *President.*
—— ——,
—— ——,
—— ——,
—— ——,
—— ——,

The Directors and the Board of Directors of the Denver & Rio Grande Western Railway Company.

Attest: —— ——,
Secretary of the Denver and Rio Grande Western Railway Company.

Filed at Provo City, Utah, Jun- 6, 1897.
GEO. HAVERCAMP, *Clerk.*

484 We, the undersigned, attorneys for the respective parties in the foregoing-entitled cause, do hereby certify that the foregoing is a full, correct, true, and complete transcript of the proceedings in said cause on appeal and of all the pleadings in said cause, of all orders on demurrer, of the findings of the court and conclusions therefrom, and of the judgment, and of notice of intention to move for a new trial, and of the notice of appeal, and of the bill of exceptions and statement on motion for new trial; and we do further certify that appellants have given and filed the bond on appeal required by law.

Dated Salt Lake City, June 26, 1897.

BENNETT, H., H. & B.,
Attorneys for Plaintiff.
BROWN & HENDERSON,
Attorneys for Defendants & Appellants.

485 In the District Court of the Fourth Judicial District, Utah County, State of Utah.

THE RIO GRANDE R. W. Co., Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION Co., L. L. NUNN, and L. Holbrook, Defendants.

Petition for Removal of this Cause to the United States Circuit Court in and for the District of Utah.

To the hon. district court of said county and State:

Your petitioners, The Telluride Power Transmission Co. and L. L. Nunn, respectfully show that they are defendants in the above-entitled suit, and that the matter and amount in dispute in the said suit exceeds, exclusive of interest and costs, the sum and value of $2,000.00. Your petitioners further shows that the said suit is of a civil nature, and that there is in said suit a controversy that is wholly between citizens of different States and which can be fully determined as between them, to wit, a controversy between your petitioners, The Telluride Power Transmission Co. and L. L. Nunn, who aver that they were at the time of the bringing of this suit and still are citizens and residents of the State of Colorado, and the said plaintiff, The Rio Grande Western Railway Co., who, as your petitioners aver, was then and still is a citizen and resident of the State of Utah; that said controversy is of the following nature, viz: Said plaintiff brings suit to quiet title to certain lands herein described, to obtain a decree that def'ts have no interest therein, and to obtain right of way for the construction of a railroad over said lands, in Provo canyon and situate in township 5 south of range 3, Salt Lake meridian, in Utah county, Utah, and which lands are more particularly described as follows, to wit:

The northeast quarter of the northwest quarter of sec. 34, the north half of the northeast quarter of sec. 34, and all of the
486 southeast quarter of the southeast quarter of sec. 27 of said township and range, the amount desired to be obtained by

said plaintiff being a strip 200 feet wide and located across lands alleged to have been occupied by L. Murphy; and it is further alleged by the plaintiff that the defendants set up and assert an adverse claim to such lands and have interrupted plaintiff in the pursuit of work of grading for said railroad over said lands.

Your petitioners allege that the said defendant, Holbrook, has no interest whatever in said controversy and claims no interest in and to said lands, but that he is a mere nominal party, and, as your petitioners believe and therefor- aver, was named as one of the defendants in said case with a view to conferring jurisdiction upon this court to try and determine said controversy, and that his presence is not necessary to quiet the title to said property or determine the controversy involved in said suit.

Your petitioners allege that said controversy is one that is seperable, and that the only claim, as alleged in said complaint, which is adverse to that of the said plaintiff in and to said property described in said complaint is such as is asserted by your petitioners, The Telluride Power Transmission Co. and said L. L. Nunn, defendants aforesaid and residents as aforesaid of the State of Colorado.

And your petitioners *affer* herewith a bond, with good and sufficient surity, for their entering in said circuit court of the United States, on the first day of its next session, a copy of the record in this suit, and *and* to pay all of the costs that may be awarded by said circuit court of the United States if the said court shall hold that this suit was wrongfully or improperly removed thereto.

And your petitioners pray this honorable court to proceed no further herein except to make an order of removal required by law and to accept such surity and bond to pay costs of record herein to be removed to the said circuit court of the United States in and for the district of Utah; and your petitioners will ever pray.

BROWN, HENDERSON & KING,
Attorneys for Petitioners.

487 STATE OF UTAH, } ss:
County of Utah, }

William H. King, being sworn, upon oath deposes and says that he is a member of the firm of Brown, Henderson and King, attorneys for the petitioners in the above-entitled cause; that he has read the foregoing petition and knows the contents thereof, and that the statements and allegations therein contained are true, as he verily believes.

WILLIAM H. KING.

Subscribed and sworn to before me this 5th day of Dec., 1896.

EDWARD S. FERRY,
[SEAL.] *Notary Public.*

488 Know all men by these presents that we, as surities, are held and firmly bound unto the Rio Grande Western Railway Co. in the penal sum of $200.00; for the payment whereof, well and truly to be made, unto the said Rio Grande Western Railway Co., its successors and assigns, we bind ourselves, our heirs,

representatives, and assigns, jointly and severally, firmly by these presents;

Yet upon these conditions: The Telluride Power Transmission Co. and L. L. Nunn having petitioned the fourth district court of Utah county, Utah, for the removal of a certain cause therein pending, wherein The Rio Grande Western Railway Co. is plaintiff and The Telluride Power Transmission Co. *et al.* defendants, to the circuit court of the United States in and for the district of Utah:

Now, if the said Telluride Power Transmission Co. and L. L. Nunn, your petitioners, shall enter into the said circuit court of the United States, on the first day of the next session, a copy of the record in said suit and shall well and truly pay all costs that may be awarded by said circuit court of the United States if said court shall hold that said suit was wrongfully or improperly removed thereto, then this obligation to be void; otherwise in full force and virtue.

Witness our hands and seals this — day of ——, 1896.

[SEAL.] L. HOLBROOK.
[SEAL.] SAMUEL A. KING.

STATE OF UTAH, } ss:
County of Utah, }

—— —— and —— ——, of said county, the surities named in the foregoing bond, being duly sworn, each for himself deposes and says that he is a resident of the State of Utah and a property-holder therein; that he is worth the sum of $200.00 over and above all just debts and liabilities, exclusive of property exempt from execution, and that he has property in the State of Utah of the value of more than $200.00.

[SEAL.] L. HOLBROOK.
[SEAL.] SAMUEL A. KING.

Subscribed in my presence by said L. Holbrook and Samuel A. King and by them sworn to before me this 8th day of Dec., 1896.

E. L. JONES,
County Clerk, Utah County, Utah.

489 Fourth District Court Minutes, Utah Co., Utah, September Term, 1896—Saturday, the 12th Day of December, 1896.

RIO GRANDE WESTERN RAILWAY CO.
vs. } 122.
TELLURIDE POWER TRANSMISSION CO. ET AL.

In this cause defendants' motion to transfer this cause to the Federal court, at Salt Lake City, is set for hearing Friday, December 18th, 1896.

A. C. HATCH, *Judge.*

Fourth District Court Minutes, Utah Co., Utah, December Term, 1896—Friday, the Eighteenth Day of December, 1896.

RIO GRANDE WESTERN RAILWAY CO.
vs.
TELLURIDE POWER TRANSMISSION CO. ET AL. } 122.

In this cause defendants' petition for transfer of said cause to Federal court of this State came on to be heard. After hearing the arguments of counsel for respective parties hereto the court reserves its opinion till Monday, December 21st, 1896, at 2 o'clock p. m.

A. C. HATCH, *Judge.*

490 Fourth District Court Minutes, Utah Co., Utah, December Term, 1896—Wednesday, the 23rd Day of December, 1896.

RIO GRANDE WESTERN RAILWAY CO.
vs.
TELLURIDE POWER TRANSMISSION CO. ET AL. } 122.

In this cause the court, having heretofore heard and taken under advisement defendants' petition for transfer filed herein, now being fully advised, renders its findings of fact and conclusions of law and denies said motion.

A. C. HATCH, *Judge.*

491 In the District Court of the Fourth Judicial District, Utah County, Utah.

THE RIO GRANDE RAILWAY CO., Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION CO., L. L. NUNN, and L. Holbrook, Defendants.

Now comes the defendants The Telluride Power Transmission Co. and L. L. Nunn and object to the exercise of any jurisdiction over them or over the subject-matter of this suit by this court, and moves the court to proceed no further in this suit, and for cause show, first, that this court has no jurisdiction in the premises; second, that said suit has been removed into the circuit court of the United States for the district of Utah; third, that no order has been made by said court remanding said suit to this court; that on the record said defendants are entitled under the laws of the United States to have said suit removed into said circuit court.

BROWN & HENDERSON AND
T. A. BAILEY.

492 STATE OF UTAH, } ss:
County of Utah, }

I, Geo. Havercamp, county clerk and *ex officio* clerk of the fourth judicial district court in and for the county of Utah, State of Utah,

do hereby certify that the foregoing is a full, true, and correct copy of the original petition for removal to U. S. district court, bond of petitioners, minute orders on same, and objections of defendants in the case of Rio Grande Western Railway Co. *vs.* Telluride Power Transmission Co. *et al.*, as appears of record in my office.

In witness whereof I have hereunto set my hand and affixed my official seal this 28th day of Dec., A. D. 1897.

{Seal Fourth Judicial District Court, County of Utah, State of Utah.}

GEO. HAVERCAMP,
County Clerk,
By A. V. ROBISON,
Deputy Clerk.

492½ [Endorsed:] 849. In supreme court of Utah. The Rio Grande Western R. W. Co. *vs.* The Telluride Power & Transmission Co. *et al.* Part of transcript. Filed Jan. 21, 1898. Lilburn P. Palmer, clerk supreme court Utah.

493 In the Supreme Court of the State of Utah, Regular September Term, September 22, 1897.

RIO GRANDE WESTERN RAILWAY CO., Respondent,
v.
THE TELLURIDE POWER TRANSMISSION COMPANY and L. L. NUNN, Appellants,

Submission.

This cause, coming — regularly for hearing, was argued by Hon. Arthur Brown for the appellants, by Hon. Robert Harkness in reply, was submitted, and by the court taken under advisement.

Regular September Term, December 7th, 1897.

Title of Court and Cause.

Judgment.

This cause having been heretofore argued and submitted, and the court being sufficiently advised thereon, it is now here considered, ordered, and adjudged that the judgment of the district court herein be, and the same is hereby, affirmed with costs.

494 In the Supreme Coust of the State of Utah, September Term, 1897.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Respondent,
v.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, and L. Holbrook, Appellants.

ZANE, *C. J.:*

It appears from this record that the plaintiff, The Rio Grande Western Railway Company, was organized on June 24th, 1889, by

the consolidation of the Denver and State Line Railway Company, a then recent corporation of Colorado, and the Denver and Rio Grande Western Railway Company, a corporation of Utah, organized July 28th, 1881.

The plaintiff alleged in its complaint that it was authorized to build a railway in Provo canyon, on Utah, on either of two routes described, which were identical for the first twelve miles; that it had located and surveyed the right of way for its railway over the land in dispute, and was in actual possession, grading the
495 same, when the defendants under an a-verse claim stopped the work by threats. Judgment quieting title and awarding an injunction was asked. It was admitted that the land was unsurveyed land of the United States.

Defendant Holbrook disclaimed any interest in the subject of litigation, but united with the other defendants in denying plaintiff's rights. The other defendants, answering further, alleged possession and a right to dam the river and flow the canyon and the lands in question.

The court heard the case, made its findings of fact, stated its conclusions of law, and decreed that the plaintiff lawfully appropriated the land in dispute and was in the actual possession thereof, and that the defendants had no right or title thereto, and issued an injunction restraining them from interfering with plaintiff's possession. The defendants have brought the case before us for review. The errors alleged raise the following questions, which we deem it necessary to consider and decide:

1st. Had there been a statutory forfeiture of the plaintiff's charter in consequence of a failure to complete and put its road in operation, as required by the statute, after its articles were filed with the auditor and secretary of the late Territory or the State of Utah?

2nd. Had plaintiff the lawful right to locate its right of way in the canyon and had it located it over the land in dispute, and was it in the actual possession thereof when defendants interfered with its possession?

3rd. Did the law require the plaintiffs to file with the register of the land office a profile of its road in order to rely on location and actual possession?

496 4th. Had the defendants or either of them made such appropriation and had they or either of them such possession of the land in dispute as authorized them to held it against the plaintiff?

In deciding the first question it is necessary to determine whether the evidence shows a violation by the plaintiff of section 2358, C. L. U. 1888, as follows:

"If such railway company shall not, within two years after the filing of its original articles of association, begin the construction of its road and expend thereon at least five per cent. of the amount of its capital stock and finish the road and put the same in full operation within ten years, its act of incorporation shall be void."

This section required the plaintiff to begin the construction of its road and to expend thereon at least five per cent. of the amount of

its capital stock within two years after filing its original articles of incorporation, and also required it to finish the same and put it in full operation within ten years of that time. The two years within which the construction must commence and the ten years within which the road must be finished and put in full operation begins to run when the company files its original articles of incorporation.

One of the companies consolidating, namely, the Denver and Rio Grande Western, filed its articles of incorporation in 1881, more than fifteen years before the plaintiff commenced constructing its railway over the land in dispute; but the plaintiff organized and filed its articles of incorporation on June 24th, 1889, less than seven
497 years before the plaintiff commenced the construction of its line over the land. The entire distance of the various lines of road mentioned in the plaintiff's articles, constructed and to be constructed, amounts to about 3,100 miles, and there appears to be no doubt that the Utah Company commenced to build its road and that it expended thereon more than five per cent. of its capital stock within two years after its articles of incorporation were filed, but it is clear that the construction of the road over the land in dispute was not commenced until fifteen years thereafter. It is therefore necessary to determine whether the company, by the old companies, is to be regarded as a new and distinct company, or is in effect the perpetuation of the old one consolidated under a new name; and, if the company organized by the old ones shall be regarded as a new and distinct one, whether the limitation of ten years in which to complete its road shall be applied to the new one, with a portion of the ten years exhausted and deducted, or whether it shall have the full ten years after its articles of incorporation within which to finish and put it in operation. In order to *to* determine these questions it will be necessary to interpret and construe the law authorizing such railway companies to consolidate.

Sec. 2360 of ch. 3, C. L. U. 1888, declares that "it shall be lawful for any railroad companies organized under the laws of this Territory to consolidate their capital stock, debts, property, assets, and franchises with any railroad company or companies organized under the laws of any State or other Territory."
498 This section authorizes Utah corporations to consolidate their capital stock, debts, property, assets, and franchises with railroads of other States. It does not say that Utah corporations shall consolidate their right to exist with the right to exist which a corporation may possess under the laws of another State.

The franchise or right to be a corporation—of corporate existence—is regarded as different from the franchise or right to transact the business and to perform the acts essential to effect the purpose of the corporation.

The method of effecting the consolidation authorized by the above section is prescribed by section 2361 of the same chapter as follows:

"Said consolidations shall be made under the conditions, provisions, restrictions, and with the powers hereinafter in this act mentioned, that is to say, the presidents or secretaries of the several corporations proposing to consolidate, may enter into a joint agree-

ment under the corporate seal of each company for the consolidation of said several companies, and prescribing terms and conditions thereof, the mode of carrying the same into effect, the name of the new corporation, the number and names of the directors and officers thereof, and who shall be the first directors and officers, and their place of residence, the number of shares of capital stock, the principal place of business of the new company in each State or Territory traversed by the line of railway, and such other provisions as may be required by law to be inserted in an original certificate of incorporation, the manner of converting the capital stock of each of said companies into that of the new corporation, and how and when directors and other officers shall be chosen, with such other details as they shall deem necessary to perfect such new corporation and consolidation of said companies; said agreement shall be authorized or ratified by the board of directors of each company consolidating, and shall be submitted to the stockholders of each of the said companies or corporations, at a meeting thereof called for the purpose of taking the same into consideration; * * * and the agreement so adopted, or a certified copy thereof, shall be filed in the office of the auditor of public accounts, and in the office of the secretary of the Territory, and shall from thence be deemed and taken to be the agreement and act of consolidation of said companies, and a copy of said agreement and act of consolidation duly certified by said auditor or by the secretary of the Territory, under the official seal, shall be evidence of the existence of said new corporation." * * *

499 This section requires the companies consolidating to enter into a joint agreement, and requires the conditions of the consolidation, the mode of carrying the same into effect, the name of the new corporation, the number and name- of the directors, the number of shares of the capital stock, and such other provisions as may be required by law to be inserted in an original certificate of incorporation; also the manner of converting the capital stock of each company into that of the new corporation. In short, the essential provisions and statements common to all railroad articles or charters under the laws of this State are required; and the section declares that such agreement, when duly filed with the auditor of public accounts and with the secretary of state, shall from thence be deemed and taken to be the agreement and act of consolidation. An organization so formed by the acts of the companies consolidating is characterized in the section as a new corporation. By such means a new corporation is brought into existence.

Other sections of the chapter in which the franchise—the powers necessary to enable the corporation so created to accomplish the purpose of its creation, namely, the authority to build its railway and to equip and operate it—we will now call attention to and consider.

Section 2362 declares that—

"Upon the making and perfecting the said agreement and act of consolidation, as provided in the preceding sections, and filing the

same as aforesaid, the several corporations parties thereto
500 shall be deemed and taken to be one corporation, by the name provided in said agreement and act, possessing within the Territory all the rights, privileges and franchises, and subject to all the restrictions, disabilities, duties and liabilities of each of such corporations so consolidated."

This section declares that the corporation so formed shall possess within the State all the franchises, rights, and privileges of each of the corporations consolidating, and that it shall be subject to all the restrictions, disabilities, duties, and liabilities to which they were subject. The franchises, rights, and privileges, and the restrictions, disabilities, duties, and liabilities intrusted to or imposed upon the new corporation are such as were described in the charters of the old ones. Instead of enumerating them in the charter of the new company the charters of the old companies are referred to for an enumeration and description of them.

Section 2363 of the same chapter declares that—

"Upon the consum-ation of said consolidation as aforesaid, all and singular the rights, privileges and franchises of each of said corporations parties to the same, and all the property, real, personal and mixed, and all debts due on whatever account, as well as of stock, subscriptions and other things in action belonging to each of such corporations, shall be taken and deemed to be transferred to and vested in such new corporation without further act or deed, and all property, all rights of way, and all and every other interest shall be as effectually the property of the new corporation as they were of the former corporation, parties to said agreement; and the title to real estate, either by deed or otherwise, under the laws of this Territory, vested in either of such corporations, shall not be deemed to revert or be in any way impaired by reason of this act; and all debts, liabilities, and duties of either of said companies shall henceforth attach to the said new corporation, and be enforced against it to the same extent as if said debts, or liabilities had been incurred or contracted by it."

501 This section transferes all the rights of property, debts due, stock subscriptions, and rights of way belonging to the old corporations to the new one, and imposes all debts, liabilities, and duties of either of them. Other provisions of the same chapter authorizes it to sue and be sued.

It is quite clear that the franchise or right of the old corporations to exist as such was not transferred by the consolidation to the plaintiff, the new one. They were not authorized to transfer their right of corporate existence to the new one nor did the law make such a transfer. The law did authorize the old companies to organize the new one in the mode pointed out, and when they had done so, it endowed the new company with the same or similar franchises, powers, and authority to acquire a right of way, to build its railway, to equip and operate it, and to transact such business as the roads consolidating co-ld, and subjected it to the same or similar disabilities, restrictions, and liabilities in the use of its franchises.

The plaintiff, the new corporation, was given a term of fifty years. It was not given the unexpired term of the old companies, and we think it was given the term of ten years from the time it filed its articles of incorporation with the auditor and secretary of state within which to finish its road and put in operation, not the unexpired portion of the ten years they had when they consolidated, which was about one year.

We are of the opinion that the plaintiff is such a railroad corporation as sec. 2358 contemplates, and its articles are such as are contemplated by it, and that it was entitled to ten years from
502 the time it duly filed them within which to finish its road and put it in full operation.

Memphis Railroad Co. *v.* Commissioners, 112 U. S., 609.
Market Street R'y Co. *v.* Hellman, 109 Cal., 571.

This view of the law renders it unnecessary to decide whether or not section 2358, above quoted, is self-executing.

The second question for our consideration and decision is, does it sufficiently appear from the evidence in the record that the plaintiff had located its right of way upon the land in dispute and whether it was in actual possession at the time the defendants interfered with its possession.

It appears that the plaintiff located its right of way over the land in dispute in pursuance of section 1 of "An act granting to railroads the right of way through the public lands of the United States," which is as follows, so far as we deem it necessary to quote:

"That the right of way through the public lands of the United States is hereby granted to any railroad company duly organized under the laws of any State or Territory, except the District of Columbia, or by the Congress of the United States, which shall have filed with the Secretary of the Interior, a copy of its articles of incorporation, and due proof of its organization under the same, to the extent of one hundred feet on each side of the central line of said road."

U. S. Statutes at Large, vol. 18, part 3, page 482.

It appears that the plaintiff had duly filed with the Secretary of the Interior a copy of its articles of incorporation and due proof of its organization thereunder; that it surveyed and located its right of way over the land in dispute about the 1st day of July, 1896, and while its employees were engaged in grading the same on the
503 3rd day of the following August, in one place, and on the 8th day of the following September, in another place, the defendant stopped them.

The plaintiff's location of its right of way over the land and its possession thereof appear to have been lawful.

As to the third point, it appears that the land in dispute was unsurveyed public lands of the United States, and the fourth section of the act last named provides: "That any railroad company desiring to secure the benefits of this act, shall, within twelve months after the location of any section of twenty miles of its road, if the

same be upon surveyed lands, and, if upon unsurveyed lands within twelve months after the survey thereof by the United States, file with the register of the land office for the district where such land is located a profile of its road; and upon approval thereof by the Secretary of the Interior the same shall be noted upon the plats in said office." * * *

If the land had been surveyed the plaintiff would have had twelve months after the survey within which to make the location; but, it being unsurveyed, it will have twelve months after the same is surveyed by the Government within which to file with the register of the proper land office a profile of its road.

The fourth question for decision is, has the defendant any right to the land in dispute?

We have no doubt that the defendants might have obtained a vested right to any unappropriated waters of the Provo river
504 for the purpose of operating machinery, for irrigation, or other useful purposes. Such right is recognized and acknowledged by the laws and decisions of this State, and sec. 2339 of the Revised Statutes of the United States declares that "Whenever by priority of possession, rights to the use of water for mining, agricultural, manufacturing, or other purposes have accrued, and the same are recognized and acknowledged by the local customs, laws and decisions of courts the possessors and owners of such vested rights shall be maintained and protected in the same; and the right of way for the construction of ditches and canals for the purpose herein specified is acknowledged and confirmed."

This right is not unrestricted, however; it must be exercised within reasonable limits.

Bassey *et al. v.* Gallagher, 20 Wall., 670.

While no mention of dams or reservoirs is made in the law, we are of the opinion that, so far as they may be necessary to the reasonable appropriation and use of such waters, they may be constructed; but as to whether such dams might be raised to the height of 85, 60, or even a less number of feet, we do not deem it necessary in this case to express an opinion. Such dams and reservoirs must be kept within reasonable limits.

It appears that the defendants' dam to the height of 15 feet does not interfere with the use of the highway in the canyon or with the occupancy or use of the canyon for any other legitimate purpose.

We are unable to find from a preponderance of the evidence
505 in the record that the defendants or either of them had appropriated the land in dispute, and that they were or that either of them was in actual possession of it when the plaintiff located his right of way, took actual possession, and engaged in grading it. We cannot regard the plaintiff as a mere intruder on the defendants' possession, nor can we hold that they had a right to prevent the plaintiff's employees from grading it and to eject plaintiff from actual possession. It is true the defendants had surveyed for dams and reservoirs at different points on the river, but

they had not taken and did not hold actual possession of the land in dispute.

Other questions were raised and discussed by counsel, but the view we have taken of the case renders it unnecessary to consider them in this opinion.

The decree of the court below is affirmed.

We concur.

BARTCH, *J.*
MINER, *J.*

506 In the Supreme Court of the State of Utah.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff,
v.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, Impleaded with L. Holbrook, Defendants.

Now come the said defendants, The Telluride Power Transmission Company and L. L. Nunn, defendants herein, and say that in the final judgment, rendered by the supreme court of the State of Utah on the 7th day of December, 1897, and in the proceedings had prior thereto certain errors were committed, to the prejudice of said defendants, which will more in detail appear from the assignment of errors to be filed as a part of this petition; and petitioners further say that in the final judgment and decree of the fourth judicial district court in and for the county of Utah, State of Utah, a decision was had against the validity of an authority exercised by the petitioners under the laws of the United States, which was drawn in question by said litigation; that by the answer in said cause the defendants alleged that they had the right and authority from the United States, and were exercising it, to erect a dam in Provo canyon for the purpose of creating water power to transmit electricity; that said right and authority existed under the mining laws of the United States originally enacted in 1866 and amended in 1872, Rev. Stats., sec. 2339, and the right of said defendants to build said dam
507 was denied by said plaintiff for the reason that said plaintiff claimed and alleged in said suit that said plaintiff had the right to build a railroad up the said canyon in the bed of the canyon, where the dam would be, and had exercised that right prior to the said authority of the said defendants; that the decision of the trial court, the fourth judicial district court in and for the county of Utah, was against the authority and validity of the claim of the said defendants, and the decision of the supreme court was against the validity of said authority claimed by said defendants.

Wherefore these defendants pray that a writ of error may issue in their behalf to the supreme court of the State of Utah for the correction of the errors so complained of, and that the transcript, papers,

and records in this cause, duly authenticated, may be sent to the Supreme Court of the United States.

ARTHUR BROWN,
HENRY P. HENDERSON,
Attorneys for L. L. Nunn and the Telluride Power Transmission Co.

Endorsed: Filed March 4th, 1898. Lilburn P. Palmer, clerk supreme court Utah.

508 In the Supreme Court of the State of Utah.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff,
v.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, Impleaded with L. Holbrook, Defendants.

On the first day of March, 1898, came the said defendants, by their attorney, Arthur Brown, and filed and presented herein a petition praying for the allowance of a writ of error intended to be urged by him; praying also that a transcript of the records and proceedings and papers upon which the judgment herein was rendered and duly authenticated may be sent to the Supreme Court of the United States, and that such full and further proceedings may be had as may be proper in the premises.

In consideration thereof I, Charles S. Zane, chief justice of the supreme court of the State of Utah, do hereby allow the writ of error upon the defendants giving bond according to law in the sum of one thousand dollars, which shall operate as a supersedeas bond.

CHARLES S. ZANE,
Chief Justice.

Endorsed: Filed March 4, 1898. Lilburn P. Palmer, clerk supreme court of Utah.

509 THE UNITED STATES OF AMERICA, *ss:*

The President of the United States of America to the honorable the judges of the supreme court of the State of Utah, Greeting:

Because in the record and proceedings, as also in the rendition of the judgment of a suit which is in the said supreme court of the State of Utah, before you, being the highest court of law or equity of said State in which a decision could be had in said State between The Rio Grande Western Railway Company, plaintiff, and The Telluride Power Transmission Company and L. L. Nunn, impleaded with L. Holbrook, defendants, wherein was drawn in question the validity of an authority exercised under the United States, to wit, the authority to build a dam upon the public domain of the United States within a canyon situate on the public domain, to wit, within Provo canyon, said dam to be built for the purpose of utilizing the power therein of the Provo river for the purpose of transmitting

electricity, and the decision was against the validity of said authority, and manifest error hath happened, to the great damage of said Telluride Power Transmission Company and L. L. Nunn, as by their complaint appears, we, being willing that error, if any hath been, should be duly corrected and full and speedy justice done to the parties aforesaid in this behalf, do command you, if judgment therein be given, that then and under your seal, distinctly and openly, you send the record and proceedings aforesaid, with all things concerning the same, to the Supreme Court of the United States, together with this writ, so that you may have the same at Washington within sixty days of the date hereof, and that, the record and proceedings aforesaid being inspected, the said
510 Supreme Court may cause further to be done therein to correct that error what of right and according to the laws and customs of the United States should be done.

Seal United States Circuit Court, District of Utah.

Witness the Hon. Melville W. Fuller, Chief Justice of the said Supreme Court, the first day of March, 1898.

JERROLD R. LETCHER,
Clerk United States Circuit Court, District of Utah.

Allowed by—
CHARLES S. ZANE,
Chief Justice of the State of Utah.

[Endorsed:] In the Supreme Court of the United States. The Telluride Power Transmission Co. & L. L. Nunn, plaintiffs in error, *vs.* Rio Grande Western R'y Co., def't in error. Writ of error. Filed Mar. 4, 1898. Lilburn P. Palmer, clerk supreme court Utah. Arthur Brown, att'y for plaintiffs in error.

511 In the Supreme Court of the United States.

THE TELLURIDE POWER AND TRANSMISSION COMPANY and L. L. Nunn, Plaintiffs in Error,
vs.
THE RIO GRANDE WESTERN RAILWAY COMPANY, Defendant in Error.

And now come the said above-named plaintiffs in error, by Arthur Brown, their attorney, and say that in the record and proceedings in the above-entitled cause there is manifest error in this, to wit:

1. The court erred in holding that said plaintiffs in error did not have a right to construct a dam 85 feet high or other proper height for the purpose of generating water power with which to transmit electric power.

2. The court erred in holding that the right of said plaintiffs in error to erect a dam for the purpose of generating electric power was not prior and paramount to the right of defendant in error, plaintiff in the action below, to build a railroad.

3. The court erred in holding that said defendant in error, plaintiff in the action below, had acquired a right of possession to con-

struct a railroad prior to the right acquired by plaintiff in error to construct a dam.

512 4. The court erred in sustaining the 20th finding of the district court, that "a dam raising the water 85 feet at Hanging rock would flow the county road to a depth ranging from 70 feet to one foot, and the expense of said road above said reservoir on the side of the mountain would be great, amounting to many thousand dollars."

5. The court erred in sustaining the decision of the district court in the 27th finding: "A dam that would raise the water 85 feet at Hanging rock or any dam higher than one 15 feet high at Middle rock would be, under all the circumstances surrounding this case, unreasonable, unnecessary, and not in accordance with the customs and conditions of the country, hampering and thwarting other interests and enterprises of a public character from passing through this important gateway leading to the eastern portion of our country, and a higher dam in this locality is unnecessary in an adjustment of the relative rights and interest of the parties and of the public interests in the uses of said canyon."

6. The court erred in sustaining the conclusion of law of the district court "that the plaintiff, prior to the commencement of this suit, had the possession, right of possession, and the inchoate title, subject to a condition subsequent, which could be performed at any time within a year after the Government survey, in and to the lands described in the complaint."

7. The court erred in sustaining the 3rd conclusion of law of the district court, "that the defendants have never had the title, possession, or right of possession to said lands or any part thereof, or

513 acquired any vested right in accordance with the laws or customs of the country, or any right to flow or otherwise occupy said lands or any part thereof or to prevent the use and occupation thereof by the plaintiff for railroad purposes, and that the adverse claim of the defendants to the said lands or to the possession or occupation thereof is unfounded and invalid."

8. The court erred in its 4th conclusion of law, "that the plaintiff (defendant in error) is entitled to judgment quieting and confirming its possession and right of possession of said lands as against the defendants and all persons claiming through or under them, and enjoining the defendants and each of them and all persons acting under them from interfering with the plaintiff (defendant in error) or interrupting it in the use and occupation of said lands, and from hindering and obstructing the plaintiff in the construction and operation of a railroad thereon and thereover; also enjoining the defendants (plaintiffs in error) and each of them from erecting a dam in Provo river at any point or place which will flow a railroad to be constructed by the plaintiff on the grade of the survey now made therefor on and over said lands."

9. The court erred in sustaining the judgment and decree of said district court wherein it is decreed "that the defendants have not, nor has either of them, at any time acquired or had any right, title, possession, or right of possession in or to said lands or any part

thereof, or any right to flow the same by a dam in said river or otherwise, and their adverse claim and the adverse claim of each of them to said lands and their claim of a right to flow or submerge the same is invalid, and the title, possession, and right of possession of the plaintiff in and to said lands for a right of way for its
514 railroad as against the defendants and each of them is hereby adjudged valid and confirmed and quieted."

10. The district court erred in proceeding to try said cause and take jurisdiction thereof after a motion had been made, which appears in the record, to remove said cause, and all proceedings subsequent to the filing of the petition and bond for removal were null, void, and without jurisdiction.

11. The supreme court erred in proceeding to hear and determine said cause and confirm the said judgment after objection made to the jurisdiction of the State court and in rendering a judgment therein after the filing of the petition and bond for removal.

515 12. The court erred in holding that the plaintiff was authorized by law to build a railroad in Provo canyon more than 10 years after the original grant of franchise to the railroad companies of which plaintiff was consolidated.

13. The court erred in holding that plaintiff was not required by the statutes of Utah to begin the construction of the line from Provo through the Provo canyon within two years after the creation of plaintiff.

14. The court erred in holding that the franchise of plaintiff to build the road through Provo canyon had not been lost by lapse of time under the statutes of Utah.

ARTHUR BROWN,
S. F. BAILEY,
H. P. HENDERSON,
Att'ys for Pl'ff- in Error.

[Endorsed:] In Supreme Court of United States. The Telluride Power & Transmission Co. & L. L. Nunn, pl'ffs in error, *vs.* Rio Grande Western R'y Co., def't in error. Assignments in error. Filed Mar. 4, 1898. Lilburn P. Palmer, clerk supreme court Utah. Arthur Brown, H. P. Henderson, & S. F. Baily, att'ys for pl'ffs in error.

516 In the Supreme Court of the United States, U. S. A.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff,
vs.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, Impleaded with L. Holbrook, Defendants.

To the Rio Grande Western Railway Company, plaintiff:

You are hereby cited and admonished to be and appear at the Supreme Court of the United States, to be holden in Washington, in the District of Columbia, within 60 days from the date of this citation, pursuant to the writ of error filed in the clerk's office of

the supreme court of the State of Utah, at Salt Lake City, Utah, wherein L. L. Nunn and The Telluride Power Transmission Company are plaintiffs in error and you, The Rio Grande Western Railway Company, are defendant, to show cause, if any there be, why the judgment rendered against the said plaintiffs in error, as in the said writ of error mentioned, should not be corrected and why speedy justice should not be done to the parties in that behalf.

Witnesseth the Honorable Melville W. Fuller, Chief Justice of the United States, this first day of March, one thousand eight hundred and ninety-eight.

CHARLES S. ZANE,
Chief Justice of the State of Utah.

Filed Mar. 4, 1898.

LILBURN P. PALMER,
Clerk Supreme Court Utah.

516½ SALT LAKE, *March* 1, '98.

Due service of a copy of within citation, of order allowing said writ, & of the writ of error admitted this first day of March, 1898.

BENNETT, H., H. & B.,
Attorneys for Defendant in Error, The Rio Grande Western Railway Co.

517 In the Supreme Court of the State of Utah.

THE RIO GRANDE WESTERN RAILWAY COMPANY, Plaintiff,
v.
THE TELLURIDE POWER TRANSMISSION COMPANY, L. L. NUNN, Impleaded with L. Holbrook, Defendants.

Know all men by these presents that we, The Telluride Power Transmission Company and L. L. Nunn, as principals, and L. Holbrook and F. R. Snow, as sureties, are held and firmly bound unto the defendant, The Rio Grande Western Railway Company, in the full and just sum of one thousand dollars, to be paid to the said plaintiff, The Rio Grande Western Railway Company, its certain attorneys or assigns; to which payment, well and truly to be made, we bind ourselves, our heirs, executors, and administrators, jointly and severally by these presents.

Sealed with our seals and dated this first day of March, in the year of our Lord one thousand eight hundred and ninety-eight.

Whereas lately, in the supreme court of the State of Utah, in a suit depending in said court between the said defendants, The Telluride Power Transmission Company and L. L. Nunn, and The Rio Grande Western Railway Company, plaintiff, a judgment was rendered against the said defendants, The Telluride Power Transmission Company and L. L. Nunn, and the said Telluride Power Transmission Company and L. L. Nunn having obtained a writ of error and filed a copy thereof in the clerk's office of the said court to re-

verse the judgment of the aforesaid suit, and a citation
518 directed to the said Rio Grande Western Railway Company, citing and admonishing them to be a-d appear in the Supreme Court of the United States, to be holden in Washington, in the District of Columbia, within sixty days from the date of said citation:

Now, the condition of the above obligation is such that if the said Telluride Power Transmission Company and L. L. Nunn shall prosecute said writ of error to effect and answer all damages and costs if they fail to make the said plea good, then the above obligation is to be void; else to remain in full force and virtue.

THE TELLURIDE POWER TRANSMISSION COMPANY,
By L. L. NUNN, *Gen. M'g'r.* [SEAL.]
L. HOLBROOK. [SEAL.]
F. R. SNOW. [SEAL.]

Sealed and delivered in presence of—
MORONI SNOW.

Approved by—
C. S. ZANE,
Chief Justice Supreme Court of the State of Utah.

March 1st, 1898.

STATE OF UTAH, } ss:
County of Salt Lake, }

L. Holbrook, of Provo, Utah, and F. R. Snow, of Salt Lake City, Utah, the sureties on the foregoing bond on appeal, being duly sworn, each for himself and not one for the other deposes and says that he is a resident and freeholder in the State of Utah and is worth the amount named in the foregoing bond over and above all his just debts and liabilities, exclusive of property exempt from execution.

L. HOLBROOK.
[SEAL.] F. R. SNOW.

Subscribed and sworn to before me this 1st day of March, A. D. 1898.

MORONI SNOW,
Notary Public.

My commission expires May 10th, 1900.

Endorsed: Filed March 4, 1898. Lilburn P. Palmer, clerk supreme court Utah.

519 UNITED STATES OF AMERICA.

STATE OF UTAH,
County of Salt Lake, } ss:

I, Lilburn P. Palmer, clerk of the supreme court of Utah, in pursuance of the attached writ of error, do return annexed hereto and to said writ the original citation, transcript of the record and proceedings, assignment of errors, together with a copy of the opinion, petition for writ of error, order granting writ of error, and bond, all in and of said court and cause, to the Supreme Court of the United States; and I further certify that said copy of said opinion, petition for writ of error, order granting writ of error, and bond, is a full, true, and correct copy of the several originals thereof on file or of record in my office.

Seal Supreme Court, State of Utah, Jan. 4, 1896.

In witness whereof I hereunto set my hand and affix the seal of said supreme court this 10th day of March, A. D. 1898.

LILBURN P. PALMER.

Endorsed on cover: Case No. 16,865. Utah supreme court. Term No., 291. The Telluride Power Transmission Company and L. L. Nunn, plaintiffs in error, *vs.* The Rio Grande Western Railway Company. Filed April 30th, 1898.